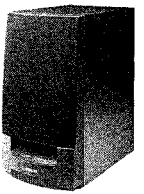
Digital Loudspeaker Box 70DSS9 40

00B

Service
Service
Service



ServiceManual

CONTENTS **PAGE**

Specifications	2
Installation & Operating	3-4
General information	5
Controls & Connections	6
Servicing hints	7
Service Test Program	8
Adjustments	9
Circuit Description	10
Faultfinding Guide	11-12
Warnings & Safety	13
Wiring Diagram	14
DSP Diagram	15
Block Diagram	16-17-18
Power Part Diagram	19-20-21
Digital Part Diagram	22-23-24
Power and Digital Component Layout .2 PCB	25-26-27
Power and Digital Chips Component Layout .2 PCB	28-29-30
Power and Digital Combi Component Layout .2 PCB	31-32-33
Power and Digital Component Layout .3 PCB	34-35-36
Power and Digital Chips Component Layout .3 PCB	37-38-39
Power and Digital Combi Component Layout .3 PCB	40-41-42
Exploded view	43-44
List of Electrical Parts	45-46-47-48-49

Published by Philips Consumer Electronics Printed in The Netherlands

©Copyright reserved Subject to modification

GB 4822 725 23970

PCS 69 304

PHILIPS

SPECIFICATION

General:

Mains voltage	: 230V ±10% 50Hz for/00B
	: 240V ±10% 50Hz for/05B
Power consumption	: ≤140W at 60W output power
	: ≤16W at stand by
Dimensions: wxhxd	: 205x375x345 mm
Weight	: 12.7 kg
System	: Digital Active, 2-way
Acoustical volume	: 8.5L
Total volume	: 26.5L
Connectors & signal Levels	: DSS-Link input cinch-type
	: Input sensitivity 200mVpp
	: Impedance 75Ω
	: DSS-Link output cinch-type
	: Output level 500mVpp
	: Impedance 75Ω
Controls	: Left/Right/Mono Rotary
	: System A/B/C Rotary
	: RC5 Infrared receiver
Externally controls	: Volume control by DSS-Link or RC command
	: Compensation by DSS-Link or RC command
	: Bass & Treble by DSS-Link command
	: Standby / ON by DSS-Link or RC command
Leds indications	: Red/Green On/Standby/RC-Acknowledge
	: Yellow Phase compensation on/off
Maximum combination of DSS	: 12

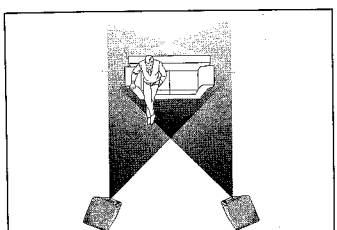
Amplifier:

Output power woofer channel	: 60W RMS at 8Ω (acc IEC 581)
tweeter channel	: 15W RMS at 8Ω (acc IEC 581)
Volume control	: 0dB to -96dB 1dB/step
Woofer channel	: G class
Frequency response	: 20Hz -10kHz ±1dB
THD+N (60W/1kHz IEC)	: ≤0.025%
Intermodulation Distortion	: ≤0.01%
S/N (at Prated) unweighted	: ≥90dB
Hum	: ≤10nW
Crosstalk to tweeter channel	: ≥ -55dB at 10kHz
Bass control	: +5dB to -5dB at 100Hz 1dB/step
With Digital compensation	
THD+N (60W/1kHz IEC)	: ≤0.03%
S/N (at Prated) unweighted	: ≥88dB
Hum	: ≤20nW
Crosstalk to tweeter channel	: limited by compensation filter
Tweeter channel	: AB class
Frequency response	: 100Hz -20kHz ±1dB
THD+N (15W/5kHz IEC)	: ≤0.03%
Intermodulation Distortion	: ≤0.01%
S/N (at Prated) unweighted	: ≥95dB
Hum	: ≤10nW
Crosstalk to tweeter channel	: ≥ -55dB at 10kHz
Bass control	: +5dB to -5dB at 10kHz 1dB/step
With Digital compensation	
THD+N (15W/5kHz IEC)	: ≤0.03%
S/N (at Prated) unweighted	: ≥95dB
Hum	: ≤10nW
Crosstalk to tweeter channel	: limited by compensation filter

INSTALLATION

SPEAKER POSITIONING

The acoustic behaviour between the loudspeaker and the room is extremely complex and has been the subject of research by engineers and academics for many years. Despite the fact that each domestic room has different acoustic specifications, there are some suggestions that may help to achieve the optimal sound quality in your domestic room. Below you will find some suggestions:



- The loudspeakers should be arranged as symmetrically as possible in the room and at the same height.
- The DSS940 performes best when the tweeter is placed on ear-height when you are sitting ± 1 meter from floor till top of the speaker). This can best be achieved by using special loudspeaker stands (see accessories) or by placing the loudspeakers on a bookshelf. Using spikes between the DSS and the stand and/or using spikes between the stand and the floor improves the quality of the low sound.
- The best stereo effect is obtained when the distance between the two loudspeakers is equal to the distance between each of the loudspeakers and the listener, so that the listener and the loudspeakers form an equilateral triangle
- Avoid positioning the loudspeakers in a corner as this causes bass reproduction to be amplified too much.
- Do not place any obstacles in front of the loudspeakers as this affects treble reproduction, causing the stereo effect to be greatly diminished.
  The listener must still be able to 'see' the loudspeakers.
- When placing the speakers on a bookshelf, pay attention to the fact that the digital loudspeaker produces heat which must be allowed to dissipate freely. For this reason do not cover the ventilation slots on the back of the unit and make sure that there is sufficient ventilation around the speaker. A minimum gap of 5 cm is necessary.

The acoustic quality of your listening room is a contributing factor in the overall sound quality of your music system. Therefore it is important to note that your own room acoustics will have an effect on the resulting sound quality of your new Philips loudspeaker system.

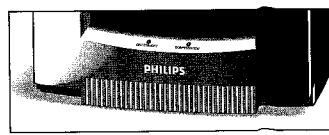
- If your room includes flat, hard walls, floor and ceiling, with few furnishings, you may note a tendency toward brightness in the sound and/or a boomy bass response. This can be compensated for with strategic placement of sound absorbing materials in your listening room. Carpets and drapes are excellent sound absorbing materials.
- If your room is heavily furnished, with thick carpeting and drapes, you may notice that higher frequencies tend to be reduced. Carefull positioning of the speakers toward the listening area can help. In addition to having an effect on the spectral (or frequency) balance of the system, the room acoustics will also have an effect on the stereo imaging.

OPERATION

POWER ON/OFF

WARNING

Do not switch on the sets until all connections have been made.



- Press the POWER ON/OFF key at the back of your speaker.
  The speaker will always enter the standby mode.
  The ON/STANDBY indication will light up red.
  In standby mode remote control commands can be received.
- Speaker system A will become active when the complete set (speakers and DSC) is powered up.
  The ON/STANDBY indication will light up green.
- As soon as the active mode is entered the speaker performs an internal software check and the indicators ON/STANDBY (green) and COMPENSATION (yellow) will light up several times.
- When you switch your DSC to standby, a command is also sent to the speakers to enter the standby mode.
- Press the POWER ON/OFF key again to switch off the power. This is only recommended during long periods of absence, such as holidays.
  Remote control commands cannot be received when the power is switched off.

DIGITAL SYSTEM CONTROLLER

All communication in the system passes via a master device. This device handles all incoming remote control messages. After processing the command the master usually will send a message to one or more secundary devices.
In a system which incorporates a DSC, this DSC will always be the master device.
The DSC sends signals to the first speaker in the chain. This speaker passes the signals on to the next speaker a.s.o. e.g. Volume settings can be sent via your DSC to your speakers.

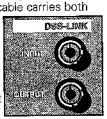
In case your loudspeakers are directly connected to a single digital device, e.g. a CD-player, the first loudspeaker in the chain will be the master device.
E.g. when a volume level is set on a loudspeaker, a message is sent to the other loudspeakers (in the same system) to adapt their volume level as well.

INSTALLATION

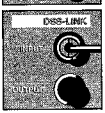
CONNECTIONS

The DSS940 loudspeaker system can be used in two configurations:

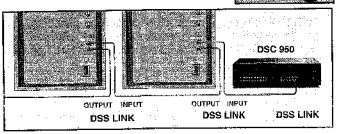
1 Consisting of a Philips Digital System Controller (e.g. DSC 950) and one or more pairs of DSS940 speakers
All the Digital Speaker Systems are hooked up to the DSC through the DSS link. This single coaxial cable carries both the stereo audio signal and the control signals for parameters such as volume and tone control.



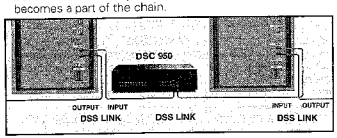
- Connect the coaxial cable from the DSS link output of your Digital System Controller to the **DSS LINK INPUT** socket of the first speaker. Then, connect a coaxial cable from the **OUTPUT** socket of the first speaker to the **INPUT** socket of the second speaker.
- Continue these operations until you have connected all your speakers.



This chain should always be ended by an end plug.



- It is also possible to connect Digital Speaker Systems to both the DSS-link outputs of the DSC. In this way the DSC becomes a part of the chain.



2 Consisting of a single digital source (e.g. a CD player) and one or more pairs of DSS940 speakers.

- Connect the coaxial cable from the digital output socket of your CD player (or other digital source) to the **DSS LINK INPUT** socket of the first speaker. Then, connect a coaxial cable from the **OUTPUT** socket of the first speaker to the **INPUT** socket of the second speaker.
- Continue these operations until you have connected all your speakers. Pay attention to always insert an end plug in the **OUTPUT** socket of the last speaker in a chain.

CHANNEL

With the CHANNEL switch on the back of your DSS940 you can select the left, mono or right signal.

- Set the switch to RIGHT when the you want the speaker to reproduce the right channel.
- Set the switch to LEFT when you want the speaker to reproduce the left channel.

SPEAKER SYSTEM A/B/C

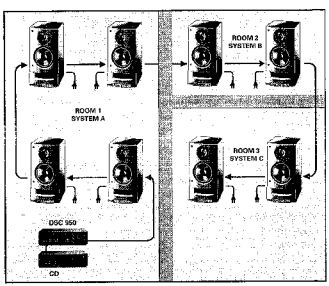
Up to 6 pairs of speakers grouped into 3 separately controllable systems can be interconnected, and controlled from one DSC or digital source.

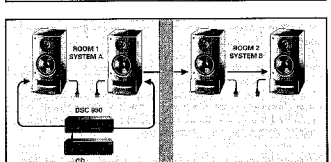
One single coaxial cable (DSS link) connects all the components.
With the SPEAKERS switch on the back of your DSS940 you can select system A, B and C.

Make sure that all the speakers in one room have the same system setting and that the DSC is placed in room 1 (system A).

Note: The maximum length of a DSS Link cable between two speakers is 20 meters.

Below please find two examples of connecting your Digital Speaker Systems.





- With the supplied remote control you can set the volume level for each speaker system separately. In this way the volume level in one room can be set at a higher level than in another room.

- All speakers are supplied with an infra-red remote control eye. The components in your system (provided they are part of the Philips 900 series) can be controlled from each room by pointing your system remote control at a DSS940 speaker. The remote control commands will automatically be passed on to your DSC which will pass on the commands to the signal source (e.g. 900-series tuner).
Pay attention that the 900 series components are connected to each other via the ESI BUS sockets (green cables).

COMPENSATION

Each DSS940 has a built-in Digital Signal Processor.
This Digital Signal Processor compensates the natural physical characteristics of the speaker system, to obtain linear amplitude and linear phase reproduction.

This compensation is active when the COMPENSATION indicator (yellow) lights up. You will then receive the optimal sound reproduction quality.

The compensation can only be switched off on the DSC. Only when it is switched off, the tone controls bass and treble can be used.
The use of the tone controls BASS and TREBLE is ***only*** recommended to correct sources of poor quality like AM radio reception.
For digital sources like CD and DCC the use of the tone controls is not recommended.

REMOTE CONTROL

Each DSS940 has an infra-red remote control eye. Therefore the remote control can be pointed to any speaker in your room. The remote control commands will automatically be passed on to the other speakers and your DSC.

With the remote control the following functions can be operated:
- **Speakers A**: switching speaker system A on and off (standby).
- **Speakers B**: switching speaker system B on and off (standby).
- **Speakers C**: switching speaker system C on and off (standby).
- **Volume** : increasing and decreasing the volume level per speaker system.
- **MUTE** on/off: to attenuate the sound by 24 dB.
- **STANDBY**: press more than 1 second to switch all units in your system to standby.

When a remote control command is received, the ON/-STANDBY indicator starts blinking (orange).
With the remote control(s) of your Philips 900 series system you can also control your total system via the loudspeakers

MAINTENANCE

The Philips DSS940 loudspeaker system is finished in high quality black foil on the top and sides of the cabinet.
We recommend that the cabinet be dusted at regular intervals. You may also use a household furniture polish in very small amounts.

The front baffle is finished in a black lacquer. To clean the baffle, slightly dampen a clean soft cloth with water and a small amount of window cleaner, then wipe carefully to remove any dust and/or fingerprints.
Then, wipe off the baffle using a clean dry cloth.
Do not use any polish or furniture oil on the baffle.

TECHNICAL SPECIFICATIONS

(Subject to modification)

System: Digital Active, 2-way

Frequency response: 40-20.000 Hz, ± 1.5 dB
35-20.000 Hz, ± 3 dB

Phase linearity: ± 10°, 350-19.000 Hz

Crossover frequency slope:
2800 Hz (Acoustical, -6 dB, 36 dB/octave

Amplifiers
Low frequencies: 75 Watt Cont.(IEC) / 260 Watt Peak
High frequencies: 20 Watt Cont.(IEC) / 50 Watt Peak

D to A converters
Low frequencies: Continuous calibration bitstream, 128 x Oversampling
High frequencies: Continuous calibration bitstream, 128 x Oversampling

S/N ratio: up to 100 dB

Channel separation: infinite

Sampling frequencies: 32 / 44.1 / 48 kHz

Connectors
DSS-link input: Cinch, IEC968 compatible (0.5 Vp-p, 75 Ohm)
DSS-link output: Cinch (0.5 Vp-p, 75 Ohm)

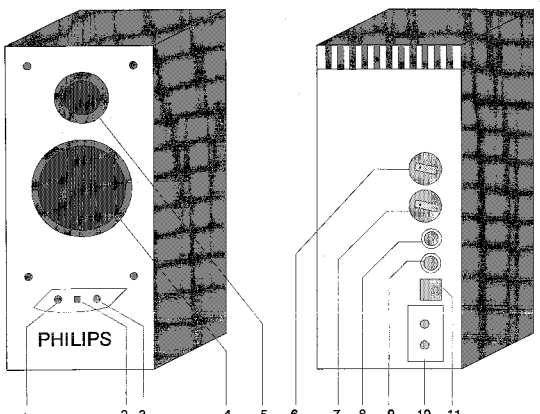
Speakers
Woofer: 7 inch glass fibre
Tweeter: 1 inch soft dome

Enclosure:
Dimensions (H x W x D): 375 x 205 x 360 mm
Acoustic volume: 8.5 litre
Material cabinet: 19 mm MDF
Material baffle: PMC
Weight: 12 kg

ACCESSORIES

– Stands	FV 105: Speaker stand with spikes (2 stands in one carton)
– DSS-link	FV 120: 1 x 20 mtr., with goltplated Cinch

CONTROLS & CONNECTIONS



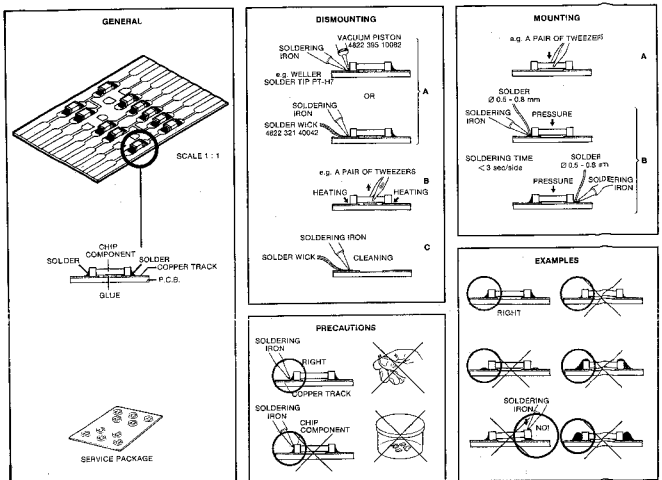
		Pos.nr.
1	ON / Standby Led	6575
2	IR Eye	7575
3	Compensation Led	6576
4	Woofer	1005
5	Tweeter	1002

		Pos.nr.
6	Switch Left/Right/Mono	1500
7	Switch Speakers A/B/C	1501
8	DSS IN connector	1400
9	DSS OUT connector	1400
10	Mains Input	1270
11	Power Switch ON/OFF	1272

SERVICING HINTS

In the set chip components have been applied.

For disassembly of chip components see the figure bellow.



DISMANTELING INSTRUCTIONS

Access to the box :

- Take off the cloth grill (item 51)
- Pull out the four grommets (item 52)
- Remove the window (item 50) by pulling firmly
- Unscrew the six visible screws using a Torx (T-10) screw driver (ϕ4 x 20 mm.)
- Take the front off the cabinet.

Servicing the tweeter :

- Remove the glue from around the tweeter cables (where they pass through the front panel)
- Unscrew the bolt M5 * 20
- Disconnect the tweeter (item 1002)
- Take the tweeter out from the front.

Servicing the woofer :

- Disconnect the woofer (item 1005)
- Unscrew the four woofer mounting bracket screws (ϕ4 x 17 mm.) and remove the mounting brackets (item 51)
- Replace the woofer (item 1005)

Servicing the display :

- Remove the glue from around the flatcable (where it pass trough the panel item 59)
- Unscrew the two screws (ϕ4 x 13), use a Torx (T - 10) headed screw driver
- Take off the partition plate item 59
- Remove the PCB and ledholder from the partition plate by unscrewing the two visible screws (ϕ 3,5 x 13 mm)

POLARITY CHECK

You can check the speaker polarity with a battery of 1,5 volts up to 3 Volts.
When the speaker is connected "in phase" the speakercone
is always moving forwards. It means the + of the battery is connected with the + of the speaker.
To ensure a good performance it is necessary that the box has no airleaks.
Cable passages and partition plates must be glued airtight.

SERVICE TEST PROGRAM

With this testprogram we can generate two sinuses,one of 5168Hz for the tweeter circuit and one of 172Hz for the woofer circuit.The DSP Board generates these two sinuses

To go in the testmode we have to connect first on the digital part pin 19 of IC7500 to the +5VD.
Connect a CD player (digital output) to the DSS box. This is needed for having EBU signal.

When this is done put the CD & Box power ON. Volume can be controlled by remote control in 3 steps.
It is also possible to connect the CD player via a DSC950 to the Box. With DSC950 volume can be controlled by hands or remote control
To go out of this service mode switch power off, and disconnect pin 19 of IC7500 off the +5VD.

FUNCTION EXPLANATION OF THE ABBREVIATIONS

STBY Led:	drive signal for the bicolor standby/on led.
IR sig:	output signal of infrared remote control detector unit.
COMP ON (LED):	drive signal for the yellow led; compensation indicator.
DEEMPH1,DEEMPH2:	drive signal for the DAC deemphasis filter.
PWD:	mains failure indication.
CBL:	channel status clock; is used to determine the sample frequency.
DSP IIC READY:	indicates that the DSP has completed its internal startup program.
DSPCLK:	clock drive signal for the DSP.
DSPRESET:	drive signal for the DSP reset pin.
EBU KILL:	kills the EBU output to the next speaker in the chain; used at startup of the speakers.
EELHB:	Enhanced Easylink signal from the host up to the EEL bus.
EELBH:	Enhanced Easylink signal from the EEL bus to the host up.
IREYE:	output of infrared remote detector circuit.
EMPH:	indicates emphasis is applied on the input EBU signal.
(emphasis:	filtering on high tones to increase S/N ratio.
SDA,SCL:	standard IIC signals (clock,data).
RXP,RXN:	differential input of the Audio Digital Interface Circuit (ADIC).
FILT:	loop filter of the ADIC's internal PLL.
SDATA:	serial data (=audio) of the IIS standard.
SCK:	bitclock (BCLK) of the IIS standard (freq.=64 times sample frequency).
FSYNC:	word select (WS) of the IIS standard (freq.= sample frequency).
MCK:	master clock in the digital system (freq.= 256 times sample frequency).
ERF:	(out of lock) indicates the PLL of the ADIC is locked on the EBU signal.
VOL,VOR:	analog outputs (woofer,tweeter) of the DAC.
VREF:	internal voltage reference of the DAC (=1/2 VDD).
VDD...:	positive supply (5V).
VSS...:	ground.
DIN,DOUT:	data in or output of the IIS standard.
IIS:	standard to transport digital audio signals, three wire connection.
AUDIO/DATA:	indicates whether the input signal is audio (music) or data (CD-ROM).
VD	Voltage Digital
VA	Voltage Analog

ADJUSTMENTS

Quiescent Current:

Before applying power:

- Check for good thermal contact between power transistor and heatsink.
- Mains Voltage 230V ±5%
- Ambient temperature =20° ± 5° and heatsink must be at ambient temperature.
- Connect voltage probes across resistors pairs 3305-3307 = testpoint 1-2 (Woofer curcuit).
- Connect voltage probers across resistors pairs 3304-3306 = testpoint 3-4 (Tweeter curcuit).
- The adjustment must be finished for both channels 30sec after power on.

After applying power:

- Place the BOX in stand-by position.
- Woofer channel: Turn slowly potmeter 3285 to 15.4mV +10% -5% is measured.
- Tweeter channel: Turn slowly potmeter 3284 to 15.4mV +10% -5% is measured.

Adjustment procedure after a woofer or tweeter repair.

Equipment:

sinewave generator: Vout= 0.5 Vrms
DSC 950: volume = -40 dB, input attenuation = 0dB
Voltmeter: floating ground connection

Adjust the woofer channel:

Level adjustment:
Put in a sinewave of 400 Hz. Measure the voltage at the woofer terminals.
(Remember: woofer ground is not ground of the set !!)
Adjust potmeter R3459 untill the terminal voltage is the value in the table, corresponding to the sensitivity of the replacement speaker.

Negative impedance circuit adjustment:
Wobbie or sweep a sinewave between 35 and 45Hz.

Measure the voltage at the woofer terminals, woofer connected ! The voltage peaks at a certain frequency in this range, depending on the woofer and the adjustment of potmeter R3386. Adjust R3386 untill the peak of the voltage is the value in the table, corresponding to the sensitivity of the replacement speaker.

Adjust the tweeter channel:

Level adjustment:
Put in a sinewave of 5000 Hz. Measure the voltage at the tweeter terminals.
Adjust potmeter R3460 untill the terminal voltage is the value in the table, corresponding to the sensitivity of the replacement speaker.

Sensitivity	woofer level	neg ouput	tweeter level
91.5dB	184 mV	0.977 V	134 mV
91 dB	195 mV	1.035 V	142 mV
90.5dB	207 mV	1.097 V	150 mV
90 dB	219 mV	1.163 V	160 mV
89.5dB	232 mV	1.232 V	169 mV
89 dB	246 mV	1.306 V	179 mV
88.5dB	261 mV	1.383 V	190 mV
88 dB	276 mV	1.465 V	201 mV
87.5dB	292 mV	1.552 V	213 mV

CIRCUIT DESCRIPTION

DSS link transceiver

The DSS link transceiver is the connecting link to the DSC950 digital system controller and the other DSS940 speakers in the system.
It receives the digital audio information (SPDIF format), buffers it to the ADIC and transmits it on the output to the next speaker. It separates the encoded EEL information from the input, sends it to the host micro-processor and the DSS link output.
It takes EEL information from the host microprocessor and sends it on both input and output cinch.

ADIC

The ADIC (audio digital interface circuit) decodes the 1 wire IEC958 digital signal into the 3 wire IIS signal (data, bitclock, wordclock). It also generates the masterclock (256 x sample frequency) by a PLL mechanism. It provides several control signals: locking state of the PLL, audio/data information, emphasis applied and a channel status clock (CBL) which is used to determine the sample rate of the input signal.

DSP (XC56004)

The DSP or digital signal processor is a fast microprocessor dedicated to process digital audio information. In the DSS940,it selects an audio channel (Left/mono/right) and performs a filtering program on it, to provide for a cross-over function, a phase compensation, bass & treble boost or cut and a volume control function for woofer and tweeter channel.
It communicates the audio information by a IIS input and output. The program and several parameters/commands are downloaded from the host microprocessor by an IIC interface. The DSP has two output pins: a "digital silence" pin which mutes the amplifier, and a handshake line to the host microproc.
The clock of the DSP is provided by a internal clock generator of the host microprocessor.

DAC (TDA1305)

The DAC (digital to analog) convertor converts the digital information to an analog signal driving the power endstage.
It has an internal digital deemphasis filter for 32kHz, 44.1kHz and 48kHz sample rate.

Analog volume control

The analog volume control provides a 6, 12 and 18dB attenuation on woofer and tweeter channel by shorting resistors to ground. The total volume control of the DSS940 is composed of an analog and digital attenuation.

Power endstage

The power endstage delivers the necessary power to drive the speakers.
The woofer channel is a class G amplifier of 60 watts into 8 ohms. The tweeter channel is a class B stage of 15 watts into 8 ohms. The woofer channel contains a sommator and feedback circuit for the negative output impedance mechanism.

Negative impedance circuit

The woofer channel has a positive feedback of the woofer current to the input of the channel. A low-pass filter limits this action to a frequency range of approx. 100 Hz. This circuit acts as a virtual negative impedance in the speaker output. The negative impedance gives a load impedance dependant boost of the output signal.

Host microprocessor

The host microprocessor is the controller of the complete DSS940 speakerbox. It contains the user interface software, the DSP program and provides EEL and IR remote control reception.

Input signal

The input signal to the board is a DSS link type digital signal.
The DSS link signal is a combined SPDIF (EBU consumer mode) and Enhanced Easylink signal. A suitable DSS link signal generator is the DSC950 digital system controller. Audio signals can be fed in at digital and analog inputs.
EEL information exchange is provided by a standard EEL bus socket.
If no DSC950 is used, any source providing a SPDIF output can be used.
In this operating mode, commands to the DSS940 can only be send by IR remote control.

FAULTFINDING and REPAIR GUIDE

1. Check the powersupply:

Before measuring the signals in the system, we have to check if all power supplies are functional.

Apply mains power and switch the set on.
On the powerstage of the unit, check the +Vh,-Vh,+Vl and -Vl supplies (52V,-52V,26V,-26V).
If one or both of these voltages are not available, check the fuses 1250 till 1253.
Most of the time this indicates a powerstage failure (transistors 7268 till 7275).
Check the voltages V+A and V-A (11V,-11V).
Failure of these voltages indicate a problem around the opamps 7255,7290 or 7291.
Check also resistors 3270 and 3271.
Check the auxilary supplies (+8,-8,+5VD,+5VA).
Failure of these voltages indicate a problem on the digital section of the unit.
Check also fuses 1259 and 1260.

2. Start-up of the unit:

After we checked the powersupplies of the unit, we will power-up again to check the start-up sequency of the unit (initialisation of the Ic's).

Switch the set off.
Connect a digital source (DSC950 or CD player) to the DSS link input (cinch 1400 upper inlet).
Connect the cinch plug 75ohm (item 57) on the DSS link output (cinch 1400 lower inlet).
Make sure there is a digital signal available on the input (put CD in play mode).
Switch on the set.
During switching on, monitor the SDA and SCL lines on the Host µP (IC7500 pin 21/22) or the DSP (SUB 1401 pin 11/14). During approx. 0.5 seconds pulses should be seen on both lines, indicating the Host µP is initialising the DSP unit.
After this, both lines should go high (+5V), except when an action is occuring (remote control, volume, changing source etc.).
If there is continuous communication on the SDA and SCL lines, or if the DSPRESET line is continuously being pulsed low this indicates something is wrong with the DSP unit (1401).
Check also the DSP-IC-READY line. (SUB1401 pin 9/ IC7500 pin 31) During download it is low, during normal operation it should be high.
Check also the DSPCLK line (SUB1401 pin13/ IC7500 pin 32). It should contain the 31.25kHz clock signal.
Failure of this indicates a problem with IC7500 or the DSP unit 1401.
After we verified that the DSP is properly initialised by the Host µP, we can further check the flow of signals in the set.

3. Normal operation:

Check the signal at pin 2 of cinch 1400 (input pin).
This shows the input EBU signal (amplitude 0.2 till 0.5 Vpp).
Failure indicates a bad soldering or contact at the cinch 1400.
Check the signal at pin 2 of IC 7400.
This contains the amplified EBU signal at 5V level.
Failure of this indicates a problem with IC 7400 or its surrounding components.
The EBU signal is fed to the ADIC which decodes the information.
When the information is valid, pin 25 of the ADIC (IC7402) goes low.
If this pin remains high, either the input signal is corrupted or IC7402 is defective. (Check the power supply at the pins of the IC !!).

NOTE: when pin 25 of IC7402 is high, the system does not become active and is muted.
Now we checked that the ADIC is functional.
It decodes the EBU stream into 4 signals:
WCLK, BLCK, DIN and MCLK (test signals 5,6,7), which contain the audio information.
Check these signals at the ADIC pins, the DSP connector pins and the DAC (IC 7403).

Now we check the DSP unit which does processing on the digital signal.
Check the DOUT pin of the unit (pin 6).
This should show a signal similar to the DIN pin (pin 2), depending on the volume level of the set.
If the volume level = -- dB, or if the input signal is "silence", the line is continuously low. If the silence (signal level <= -60dBFS) is longer than 8 seconds, also the DIGSL line will go low (SUB 1401 pin 1), muting the amplifier.

When the digital signal is processed by the DSP, it is fed to the DAC (IC 7403) to be converted to the woofer and tweeter analog signal.
Check voltage on pin 22 and 25 of IC 7403.
It contains the music signal "riding" on a 2.5V DC level.
Failure of this indicates a problem with IC 7403. (Check the power supply on the pins of the IC !!)

After the DAC, the analog signals are attenuated by a programmable resistive divider (TR7413 till TR7418).
TR7419 and TR7420 can mute the signals.
This divider can attenuate the signal by 0, 6, 12 or 18 dB, depending of the volume level of the speaker.
The transistors 7413 till 7420 are switched with a slow slope to avoid clicks (TR 7423 till 7426).
If you experience volume control behaviour (f.i. the level goes up instead of down) check these components.

4. Communication with the DSC950:

Communication with the DSC950 controller is done by mixing Enhanced Easylink signals on the DSS link bus, both to the input inlet as to the output.
The hardware responsible for this action is IC7401 and its surrounding components.
The Host µP receives and sends signals by pin 37/36 (receive) and pin 35 (transmit). During communication, you find here pulses as indicated on the schematic.
On the input and output (cinch 1400), the EBU signal is shifted according these pulses.
When the bus is idle, a low level is expected.

NOTE: FOR PROPER OPERATION, IT IS REQUIRED THAT THE TERMINATOR PLUG IS MOUNTED !

When an error occurs on the DSS link, the message is repeated until transmitted properly.

So, if there is a malfunction (short circuit etc.), there is constant EEL communication on the bus, or the pins 35 till 37 of IC7500 are constantly high.

NOTE: during startup of the DSS940 or the DSC950, there is a communication in the system to determine if there is a DSC950 connected to the system.
If there is a DSC950 connected, all of the speakers are put in the "slave" mode. If there is no DSC950 connected, the speakers are put in "master" mode.
So, if you change connections in the system, always switch the DSC950 or the DSS940 on and off to properly initialise the system.
Make sure all sets in the room with the DSC950 are set to room A (switch 1501).

WARNINGS

GB WARNING

All IC_s and many other semi conductors are susceptible to electrostatic discharges (ESD).
Careless handling during repair can reduce life drastically.When reparing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

NL WAARSCHUWING

Alle ICs en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD)
Onzorgvuldig behandelen tijden reparatie kan de levensduur drastisch doen verminderen. Zorg ervoor dat U tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat. Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

D WARNUNG

Alle IC_s und viele andere Halbleiter sind empfindlich gegenüber electrostatischen Entladungen (ESD).
Unsorgfältige Behandlung im Reparaturfall kan die Lebensdauer drastisch reduzieren. Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes.
Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

F ATTENTION

Tous les IC e beaucoup d'autre semi-conducteurs sont sensibles aux décharges statiques (ESD).
Leur longévité pourrair etre considérablement écourtée par le fait qu'aucune precaution n'est prise à leur manipulation.
Lors de réparations, s'assurer de bien etre relié au meme potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité.
Veiller á ce que les composants ainsi que les outils que l'on utilise soient également á ce potentiel.

I AVERTIMENTO

Tutti IC e parecchi semiconduttori sono sensibili alle scariche statiche. (ESD)
La loro longevità potrebbe essere fortemente ridatta in caso di non osservazione della più grande cauzione alla loro manipolazione. Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell apparecchio tramite un braccialetto a resistenza.
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

SAFETY

GB

Safety regulations require thatthe set be restored to its original condition and that parts which are identical with those specified be used.

NL

Veiligheidsbepalingen vereisen dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde worden toegepast.

D

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden für Reparaturen sind Original-Ersatzteile zu verwenden.

I

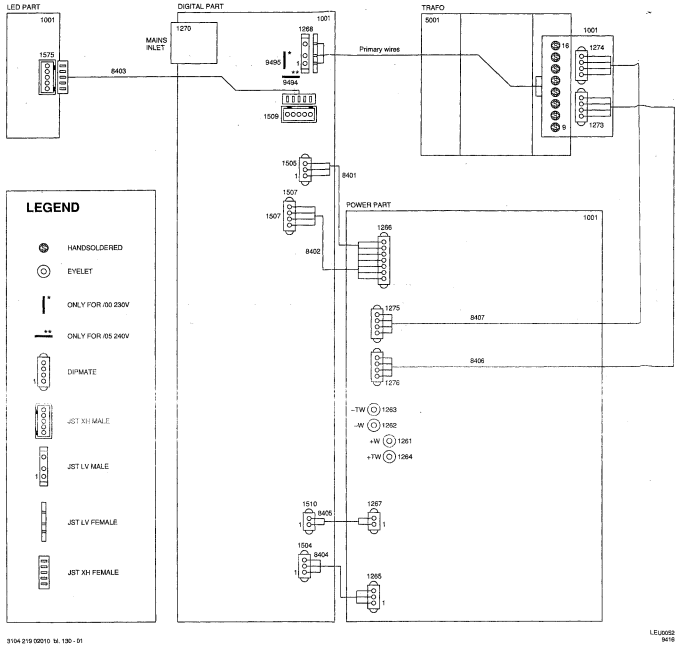
Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizione originali e che iano utilizzati pezzi di ricambiago identici a quelli specificati.

F

Les normes de sécurité exigent que lappareil soit remis à létat d'origine et que soient utilisées les pieces de rechange identiques à celles spécifiées.

Pour votre sécurité, ces documents doivent etre utilisés par des specialistes agrées, seuls habilités à réparer votre appareil en panne.

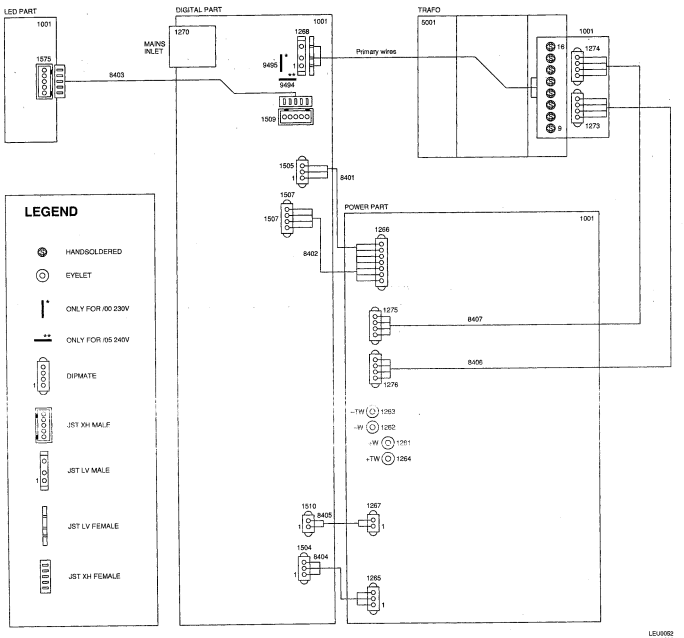
WIRING DIAGRAM



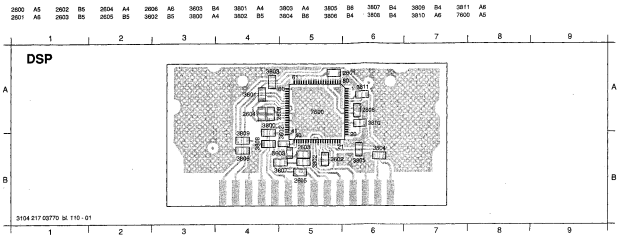
3104 219 09010 fd. 130 - 01

LEU0052 9416

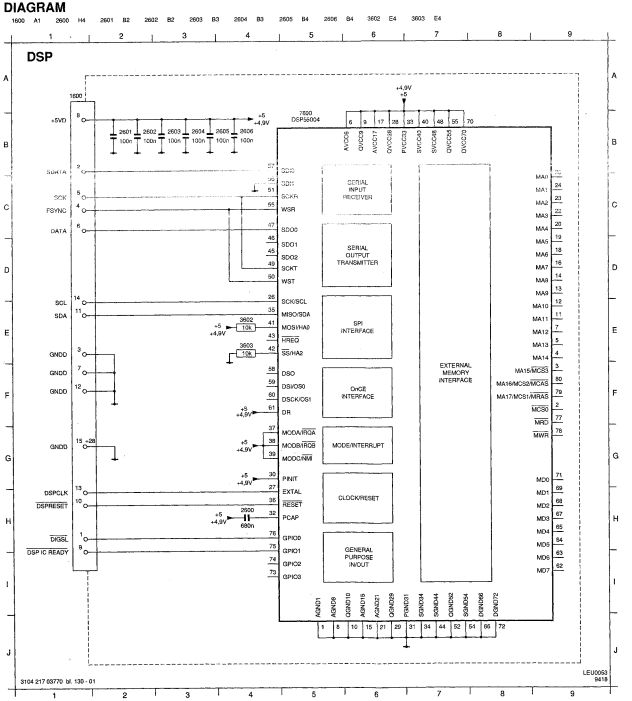
WIRING DIAGRAM



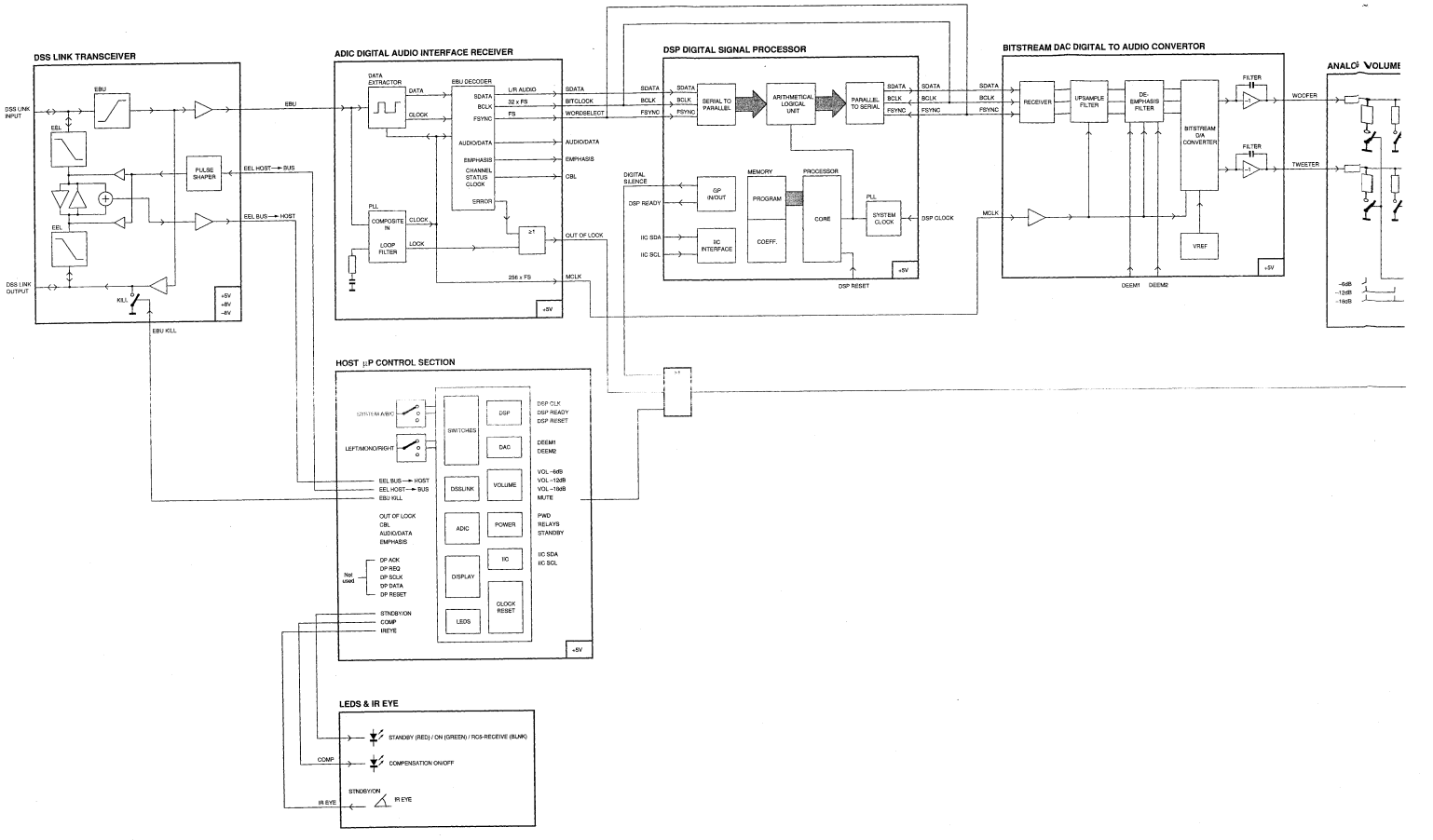
DSP COMPONENT LAYOUT



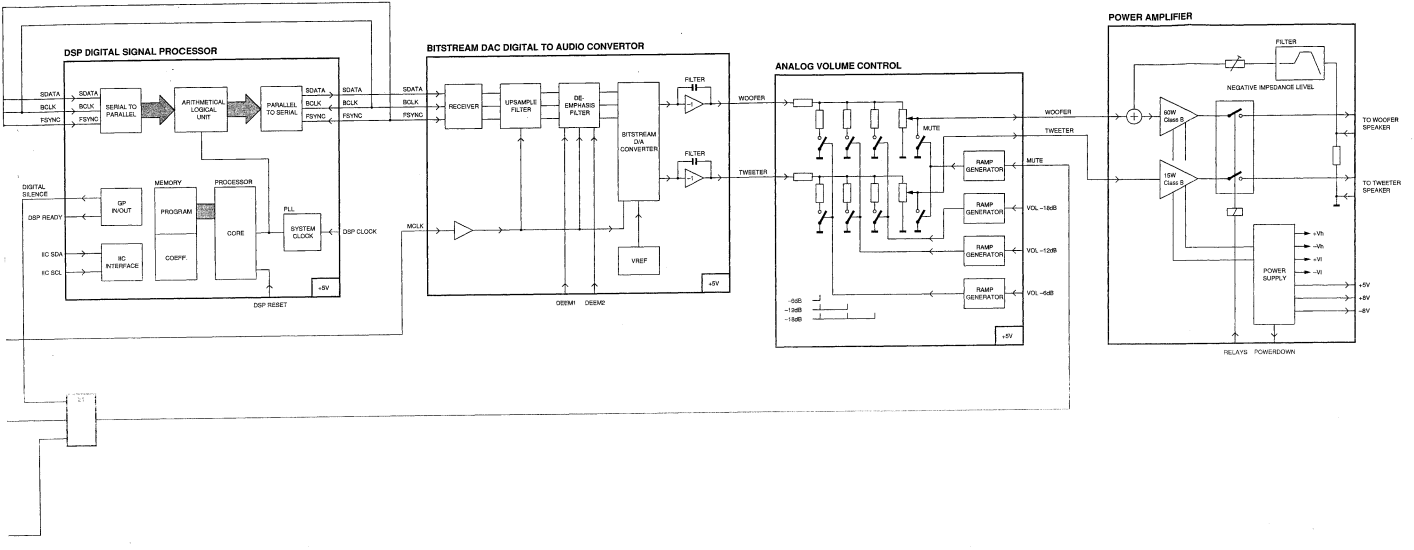
DSP DIAGRAM



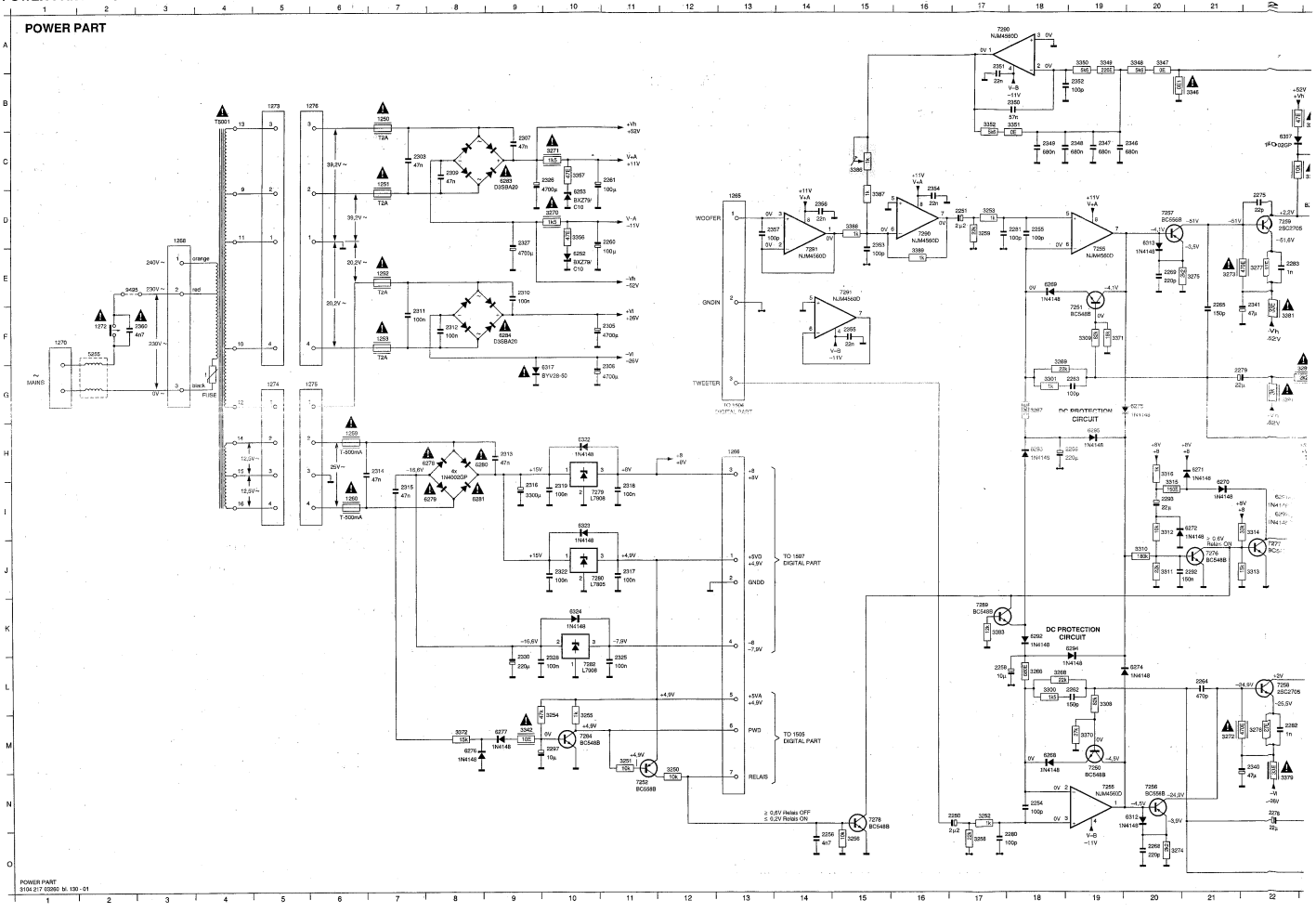
BLOCK DIAGRAM

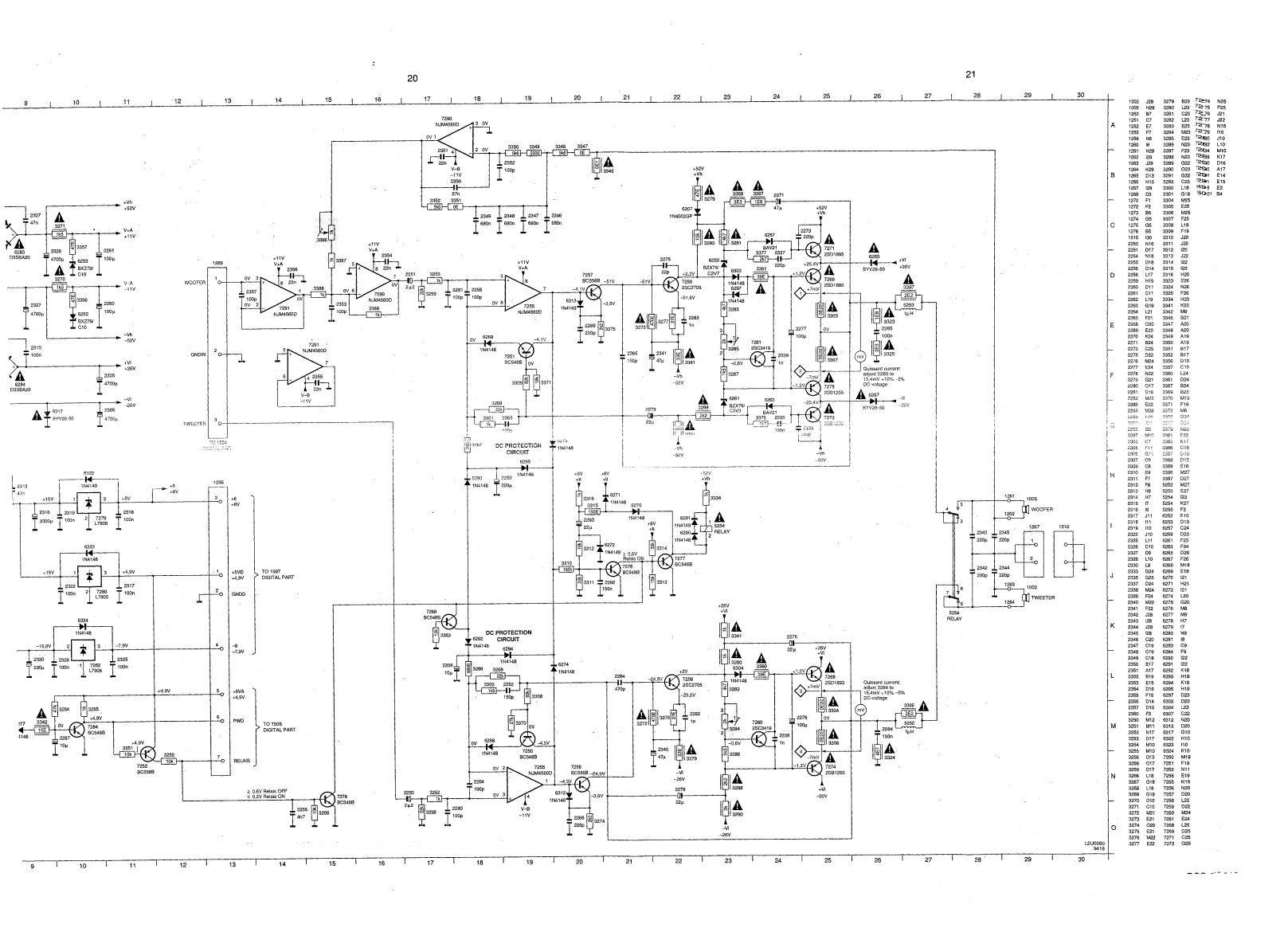


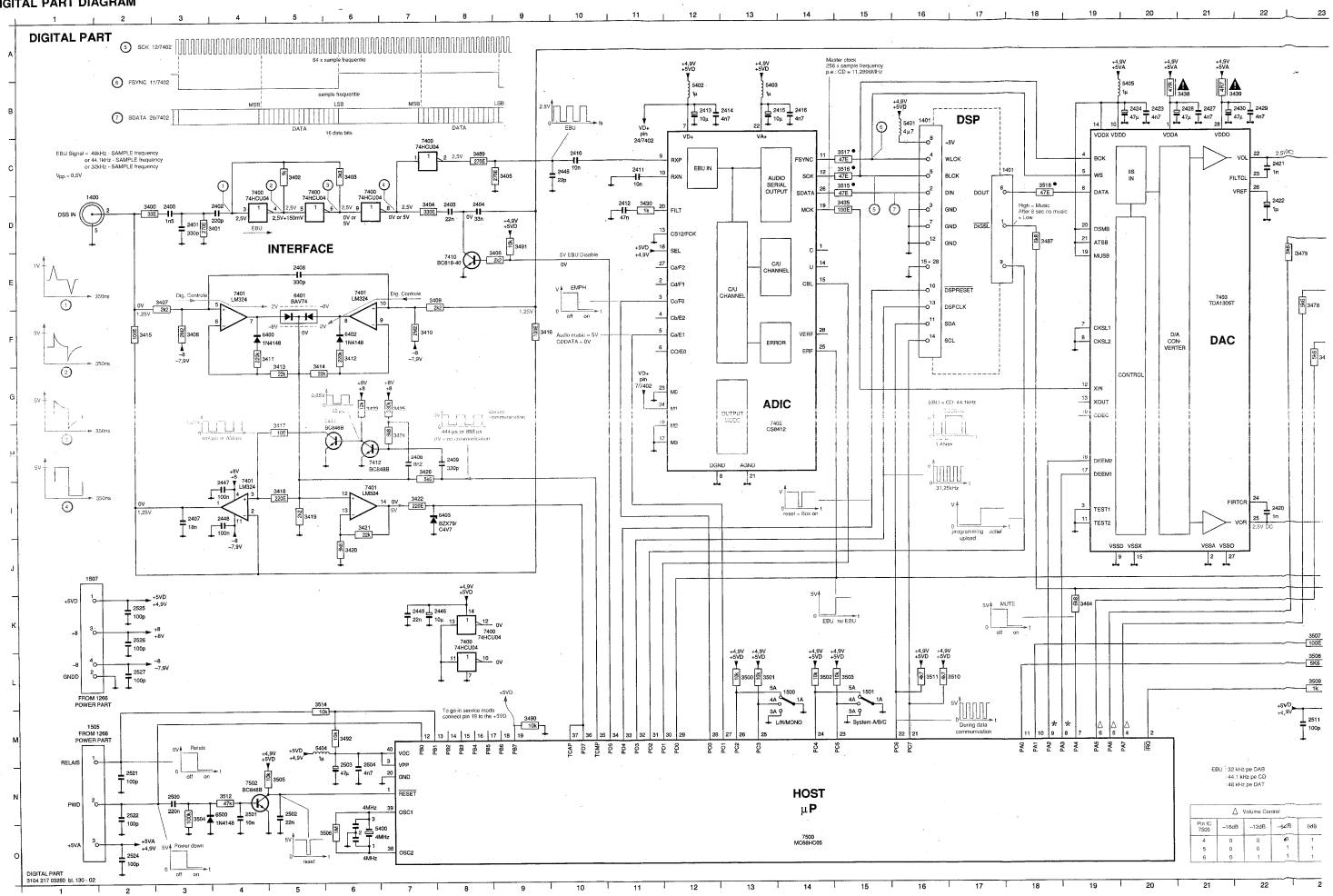
BLOCK DIAGRAM
3104 217 03260 bl. 136 - 01

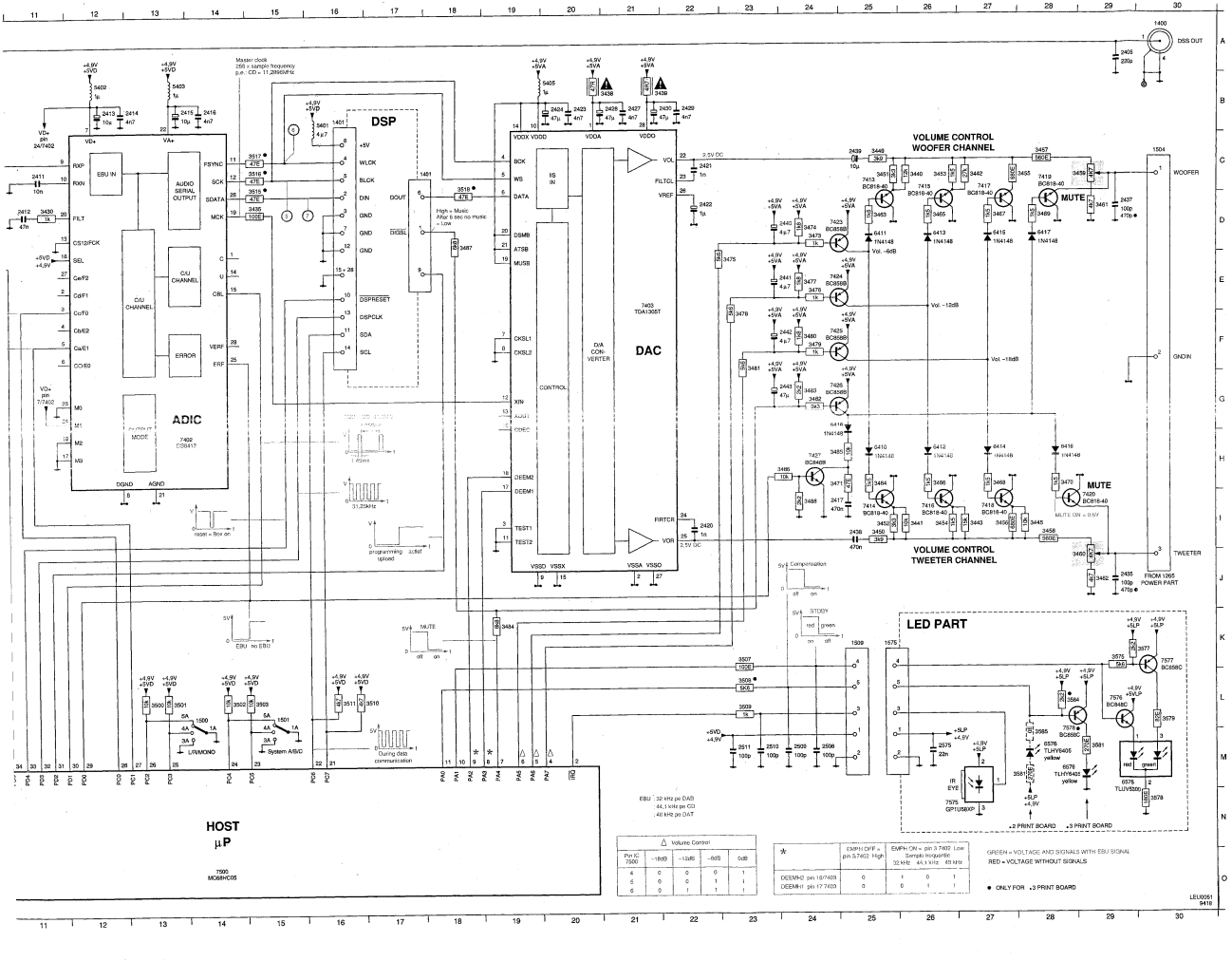

DSP DIGITAL SIGNAL PROCESSOR
SDATA
BCLK
FSYNC
SERIAL TO PARALLEL
ARITHMETICAL LOGICAL UNIT
PARALLEL TO SERIAL
MEMORY
PROCESSOR
PROGRAM
COEFF.
CORE
PLL
SYSTEM CLOCK
DSP CLOCK
GP IN/OUT
DIGITAL SILENCE
DSP READY
IIC SDA
IIC SCL
IIC INTERFACE
+5V
DSP RESET
BITSTREAM DAC DIGITAL TO AUDIO CONVERTOR
RECEIVER
UPSAMPLE FILTER
DE-EMPHASIS FILTER
BITSTREAM D/A CONVERTER
FILTER
VREF
MCLK
DEEM1
DEEM2
WOOFER
TWEETER
ANALOG VOLUME CONTROL
MUTE
RAMP GENERATOR
VOL -1dB
VOL -12dB
VOL -6dB
-6dB
-12dB
-18dB
POWER AMPLIFIER
NEGATIVE IMPEDANCE LEVEL
60W Class B
15W Class B
TO WOOFER SPEAKER
TO TWEETER SPEAKER
POWER SUPPLY
+Vh
-Vh
+Vl
-Vl
+5V
+8V
-8V
RELAYS POWERDOWN

POWER PART DIAGRAM




WOOFER
TWEETER
RELAY
DC PROTECTION CIRCUIT
DC PROTECTION CIRCUIT
TO 1507 DIGITAL PART
TO 1505 DIGITAL PART
Quiescent current: adjust 3380 to 15,4mV ±10% -5% DC-voltage
Quiescent current: adjust 3384 to 15,4mV ±10% -5% DC-voltage
≥ 0,6V Relais OFF
≤ 0,2V Relais ON
LEU0050
9418

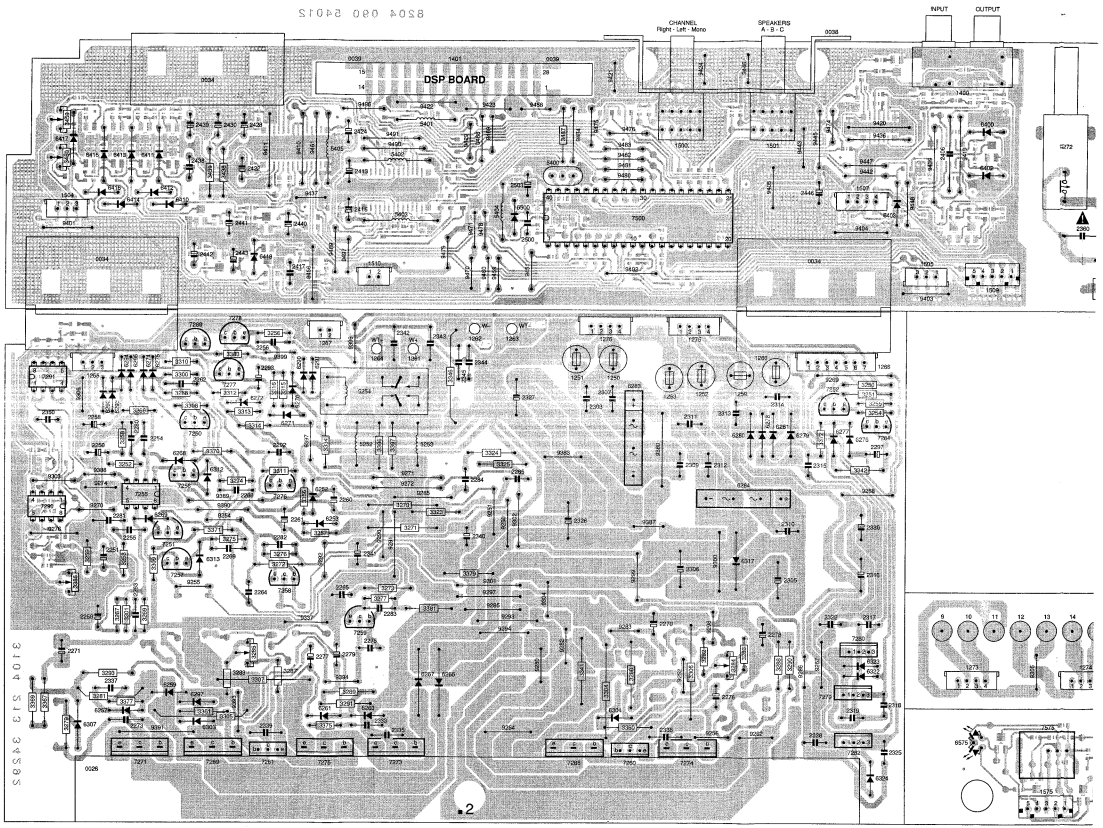

DIGITAL PART
INTERFACE
DSP
ADIC
HOST
µP
DAC
7500
MC68HC05
7403
TDA1306T
7402
CS8412
DIGITAL PART
3104 217 03280 bl. 130 - 02


DSP
ADIC
HOST µP
DAC
VOLUME CONTROL WOOFER CHANNEL
VOLUME CONTROL TWEETER CHANNEL
LED PART
MUTE
WOOFER
TWEETER
GND/N
DSS OUT
FROM 1005 POWER PART
2 PRINT BOARD
3 PRINT BOARD
EBU : 32 kHz pe DAB
44,1 kHz pe CD
48 kHz pe DAT
GREEN = VOLTAGE AND SIGNALS WITH EBU SIGNAL
RED = VOLTAGE WITHOUT SIGNALS
ONLY FOR 3 PRINT BOARD
LEU0061
9416

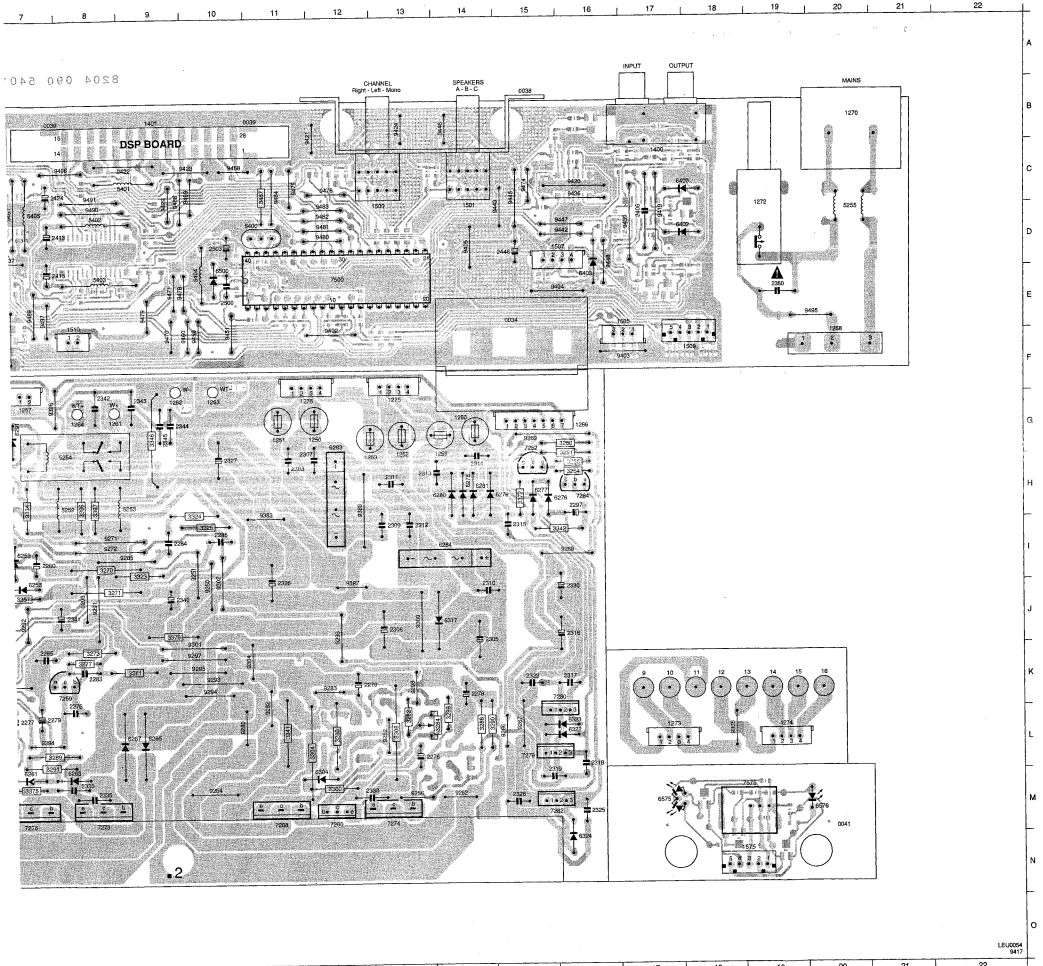
POWER AND DIGITAL COMPONENT LAYOUT

.2 PCB VERSION

POWER AND DIGITAL PART LAY-OUT



POWER AND DIGITAL PART
3104 217 03260 tri 110 - 01



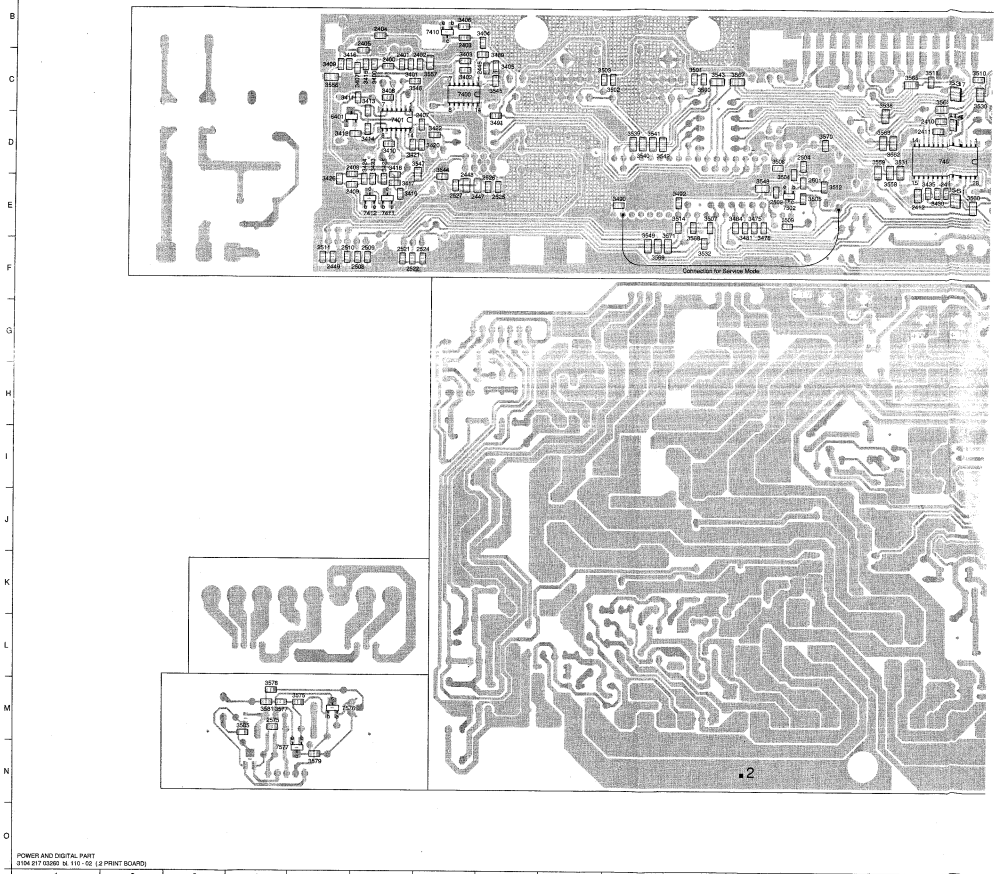
0026	M3	3250	G16	6307	M3	9447	D16
0034	C5	3251	G16	6312	I5	9448	E16
0034	E15	3252	I4	6313	J5	9451	F10
0034	E3	3253	J4	6317	J14	9455	F7
0038	B15	3254	H16	6322	L16	9458	C10
0038	E7	3255	H16	6323	L16	9459	F10
0039	B11	3256	G6	6324	N16	9460	F10
0041	M20	3258	H4	6400	C17	9461	D7
1250	G12	3259	J3	6402	D17	9468	C9
1251	G11	3266	H4	6403	E16	9469	C10
1252	G13	3267	K4	6410	D5	9470	F9
1253	H12	3268	G3	6411	D4	9471	E9
1259	G14	3268	K4	6412	D4	9474	C15
1260	G14	3270	I8	6413	D4	9475	C11
1261	G8	3271	J8	6414	D4	9476	C12
1262	G9	3272	J6	6415	D3	9478	E10
1263	G10	3273	K9	6416	D4	9479	E9
1264	G8	3274	I6	6417	C3	9480	D12
1265	G3	3275	J5	6418	E6	9481	D12
1266	G16	3276	J6	6500	E10	9482	D12
1267	G7	3277	K8	6575	M17	9483	D12
1268	F20	3279	M3	6576	M20	9484	C11
1276	B20	3280	L12	7250	H5	9489	E7
1272	D19	3281	L3	7251	J4	9490	D8
1273	L17	3282	L13	7252	G15	9491	C8
1274	L19	3283	L6	7255	I4	9495	E19
1275	G13	3284	L14	7256	I5	9496	C8
1276	G11	3285	L6	7257	J5	9497	E7
1400	C17	3286	L14	7258	K5		
1401	B8	3287	L6	7259	K8		
1500	D13	3288	L14	7260	M12		
1501	D14	3289	L7	7261	M6		
1504	D3	3290	L14	7268	M11		
1505	E16	3291	L7	7269	M5		
1507	D15	3293	L3	7271	M4		
1509	F18	3300	G5	7273	M6		
1510	E8	3301	K4	7274	M13		
1575	N18	3304	L12	7275	M7		
2250	H3	3305	M5	7276	I6		
2251	J4	3306	L13	7277	G6		
2254	H4	3307	L6	7278	F6		
2255	J4	3308	H5	7279	L15		
2256	G6	3309	J4	7280	K15		
2258	H5	3310	G5	7282	M15		
2259	K3	3311	I6	7284	H16		
2260	I7	3313	G5	7289	F6		
2261	J6	3313	H6	7290	I2		
2262	G5	3314	H6	7291	G2		
2263	K4	3315	G6	7500	E12		
2264	K5	3316	G6	7575	M18		
2265	K7	3323	I9	9250	J10		
2268	I8	3324	H10	9251	I10		
2269	J5	3325	I10	9252	L13		
2270	K12	3334	H7	9254	I5		
2271	L3	3341	L11	9256	J6		
2273	M1	3342	I10	9257	M12		
2275	K6	3346	G8	9262	M14		
2276	L13	3356	J7	9264	M10		
2277	L7	3357	J7	9266	L15		
2278	K14	3360	M12	9267	L15		
2279	L7	3361	M5	9268	I16		
2280	H4	3367	L3	9269	G15		
2281	I4	3369	L2	9270	I3		
2282	J6	3370	H5	9271	I9		
2283	K8	3371	J5	9273	I8		
2284	I9	3372	H15	9274	I3		
2285	I10	3375	M7	9276	J5		
2292	H5	3377	L4	9280	L10		
2293	G6	3379	J9	9282	L11		
2297	H16	3381	K9	9283	K12		
2303	H11	3383	G6	9285	I9		
2305	J14	3385	K3	9290	J8		
2306	J13	3396	H8	9291	J8		
2307	G11	3397	H8	9292	J7		
2309	I13	3438	D5	9293	K10		
2310	J14	3439	D5	9294	K10		
2311	H13	3459	C3	9295	K10		
2312	I13	3460	D3	9297	K10		
2313	H13	3467	C11	9298	K13		
2314	H14	3252	H8	9299	J12		
2315	I15	5253	H9	9300	J13		
2316	J16	5254	G8	9301	J10		
2317	K16	5255	D20	9302	J10		
2318	L16	5400	D11	9303	I3		
2319	M15	5401	C9	9304	K11		
2322	K15	5402	D8	9305	L18		
2325	M16	5403	E8	9306	H3		
2326	J11	5404	E10	9337	K7		
2327	H16	5405	D7	9380	H12		
2328	M15	5252	I7	9383	H11		
2330	J16	6253	I7	9387	J12		
2334	M8	6257	M3	9388	I3		
2335	M8	6259	L4	9389	I5		
2337	L4	6261	L7	9390	I5		
2338	M12	6263	L8	9391	M4		
2339	M5	6265	L8	9393	L6		
2340	J9	6267	L9	9394	L7		
2341	J8	6268	H5	9396	G7		
2342	G8	6269	I4	9397	H7		
2343	G9	6270	H7	9399	G8		
2344	G9	6271	H6	9401	E3		
2345	G9	6272	H6	9402	F12		
2350	H2	6274	G4	9403	F18		
2360	E19	6275	G4	9404	E15		
2406	D17	6276	H15	9405	D14		
2413	D7	6277	H15	9410	D7		
2415	E7	6278	H14	9411	D6		
2417	E6	6279	H15	9419	D17		
2422	D6	6280	H14	9420	C18		
2424	C7	6281	H14	9421	C12		
2428	C6	6283	G12	9422	C9		
2430	C5	6284	I14	9425	C9		
2436	D5	6290	G7	9424	B13		
2439	C5	6291	G7	9439	D9		
2440	E7	6292	H4	9436	C16		
2441	E6	6293	H4	9437	D7		
2442	B5	6294	G4	9439	D17		
2443	E6	6295	G4	9442	D18		
2446	D15	6297	L5	9443	D15		
2500	E10	6303	M5	9445	C15		
2503	D10	6304	M12	9446	B14		

POWER AND DIGITAL CHIPS COMPONENT LAYOUT

.2 PCB VERSION

POWER AND DIGITAL PART LAY-OUT

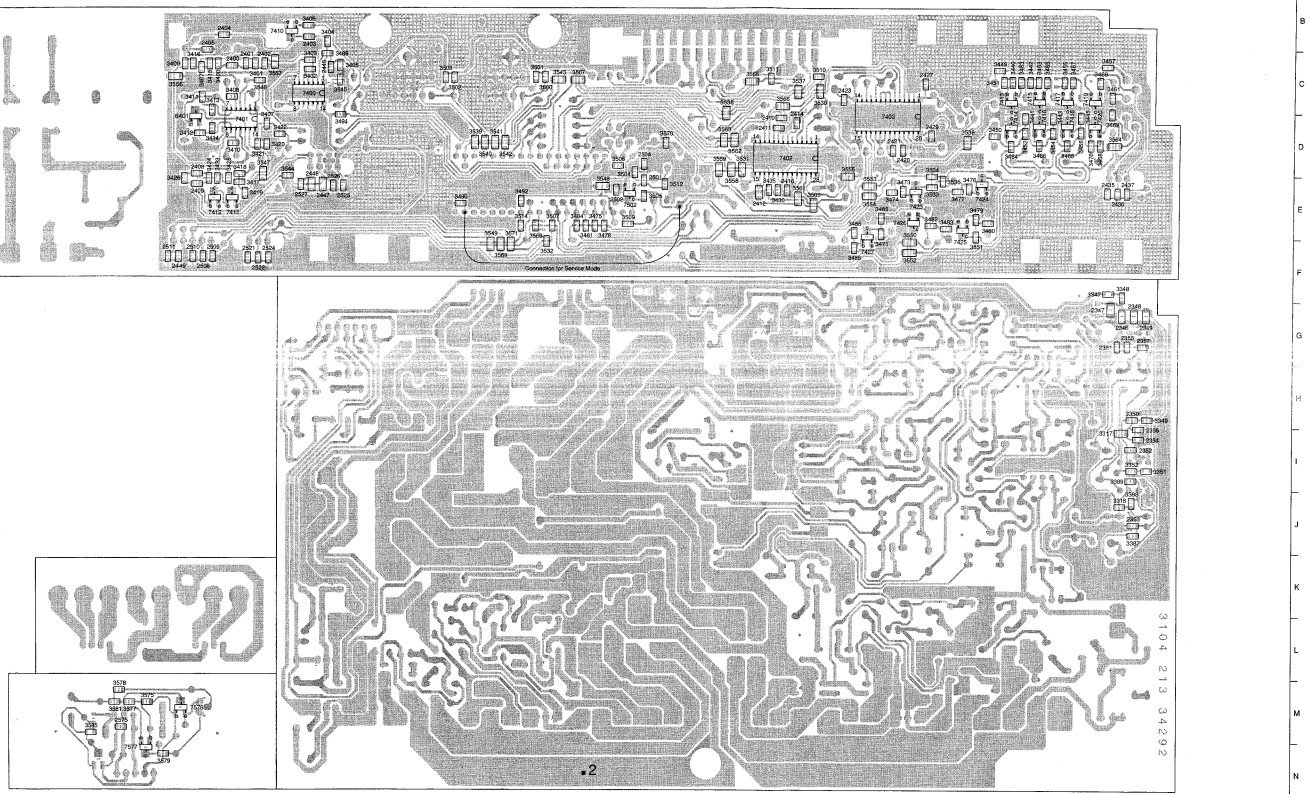
8204 090



POWER AND DIGITAL PART
3104 217 03293 (4 110 - 02 (.2 PRINT BOARD)

AL PART LAY-OUT

8204 090 54012



2346	G20	3477	E18	
2347	G20	3478	E12	
2348	G20	3479	E18	
2349	G21	3480	E18	
2351	G20	3481	E12	
2352	I21	3482	E17	
2353	J20	3483	E17	
2354	I21	3484	E11	
2355	G20	3485	E16	
2356	I21	3486	E16	
2357	G20	3488	F18	
2400	C6	3489	C8	
2401	C6	3490	E10	
2402	C6	3491	D9	
2403	B7	3492	E11	
2404	B6	3500	C11	
2405	B6	3501	C11	
2407	D6	3502	C9	
2408	D5	3503	C9	
2409	E5	3504	E12	
2410	D14	3505	E13	
2411	D14	3506	D12	
2412	E14	3507	E11	
2414	D15	3509	E12	
2416	E15	3510	C15	
2420	D17	3511	C15	
2421	D17	3512	E13	
2423	C16	3514	E11	
2427	C17	3530	C15	
2429	D17	3531	D14	
2435	E20	3532	F11	
2436	E20	3533	E17	
2437	E20	3534	D17	
2445	C7	3535	E17	
2447	E7	3536	D18	
2448	E7	3537	C15	
2449	F9	3538	C14	
2501	E13	3539	D10	
2503	E12	3540	D10	
2504	D13	3541	D10	
2506	F9	3542	D10	
2509	F8	3543	C11	
2510	F5	3544	D7	
2511	F5	3545	C8	
2521	F6	3546	C6	
2522	F6	3547	D6	
2524	F6	3548	E12	
2525	E8	3549	E10	
2526	E8	3550	E17	
2527	E7	3551	F18	
2575	M4	3552	F17	
3317	I20	3553	E16	
3318	J20	3554	E16	
3347	F20	3555	D16	
3348	F20	3556	C6	
3349	H21	3557	C7	
3350	H20	3558	E14	
3351	I21	3559	D14	
3352	I20	3560	E15	
3387	J20	3561	E15	
3388	J20	3562	D14	
3389	I20	3563	D14	
3400	C6	3564	D20	
3401	C6	3565	C14	
3402	C7	3566	C15	
3403	C7	3567	C11	
3404	B7	3568	F11	
3405	C8	3569	F10	
3406	B7	3570	D13	
3407	C6	3571	E10	
3408	C6	3575	M5	
3409	C5	3577	M4	
3410	D6	3578	M4	
3411	C5	3579	N5	
3412	D5	3581	M4	
3413	C6	3585	M4	
3414	D6	6401	D5	
3415	C6	7400	C7	
3416	C5	7401	D6	
3417	E6	7402	D16	
3418	D6	7403	D16	
3419	E6	7410	B7	
3420	D7	7411	E6	
3421	C6	7412	B6	
3422	D7	7413	C18	
3423	D6	7414	D19	
3424	D6	7415	C19	
3425	D6	7416	D19	
3426	E5	7417	C19	
3430	E15	7418	D19	
3435	E15	7419	C20	
3440	C19	7420	D20	
3441	D19	7425	E17	
3442	C19	7424	E18	
3443	D19	7426	F18	
3445	D20	7428	E17	
3446	C18	7427	F16	
3450	D18	7502	E12	
3451	C18	7576	M5	
3452	D19	7577	N4	
3453	C19			
3454	D19			
3455	C19			
3456	D20			
3457	C20			
3458	D20			
3461	C20			
3462	D20			
3463	C19			
3464	D18			
3465	D19			
3466	D19			
3467	C19			
3468	D19			
3469	C20			
3470	D20			
3471	F16			
3473	E17			
3474	E16			
3475	E12			
3476	E18			

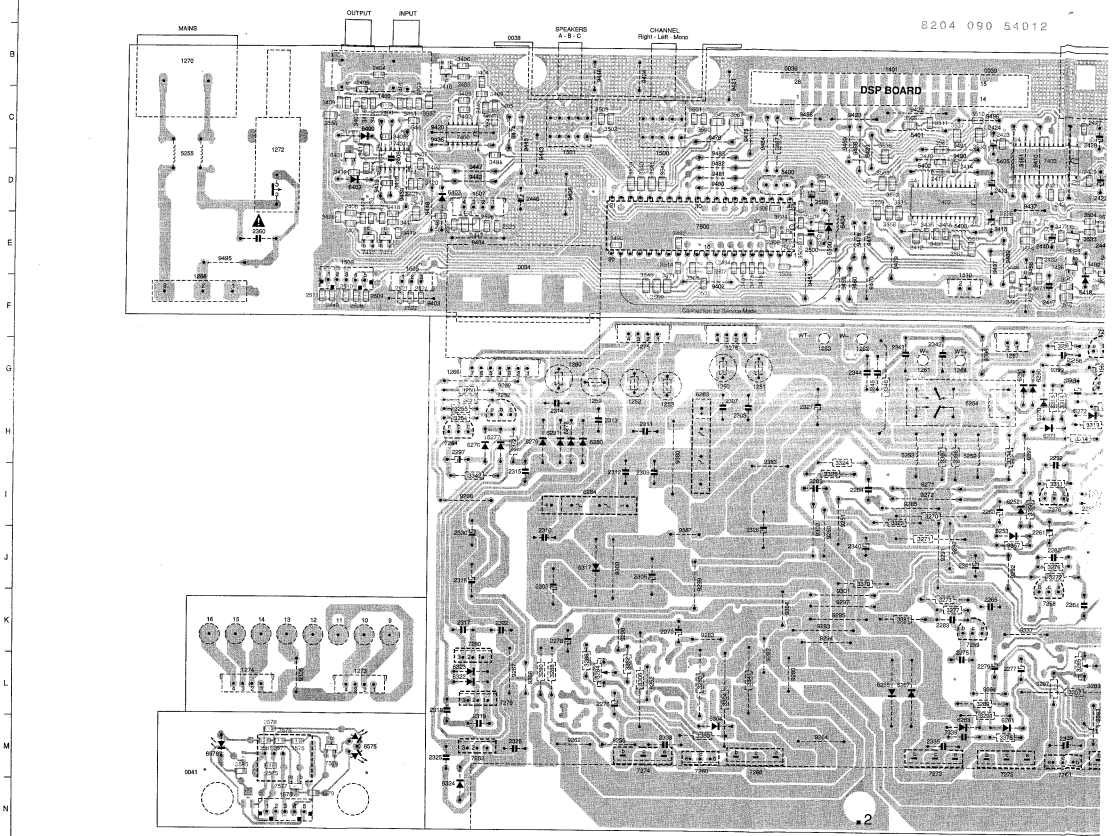
POWER AND DIGITAL COMBI COMPONENT LAYOUT

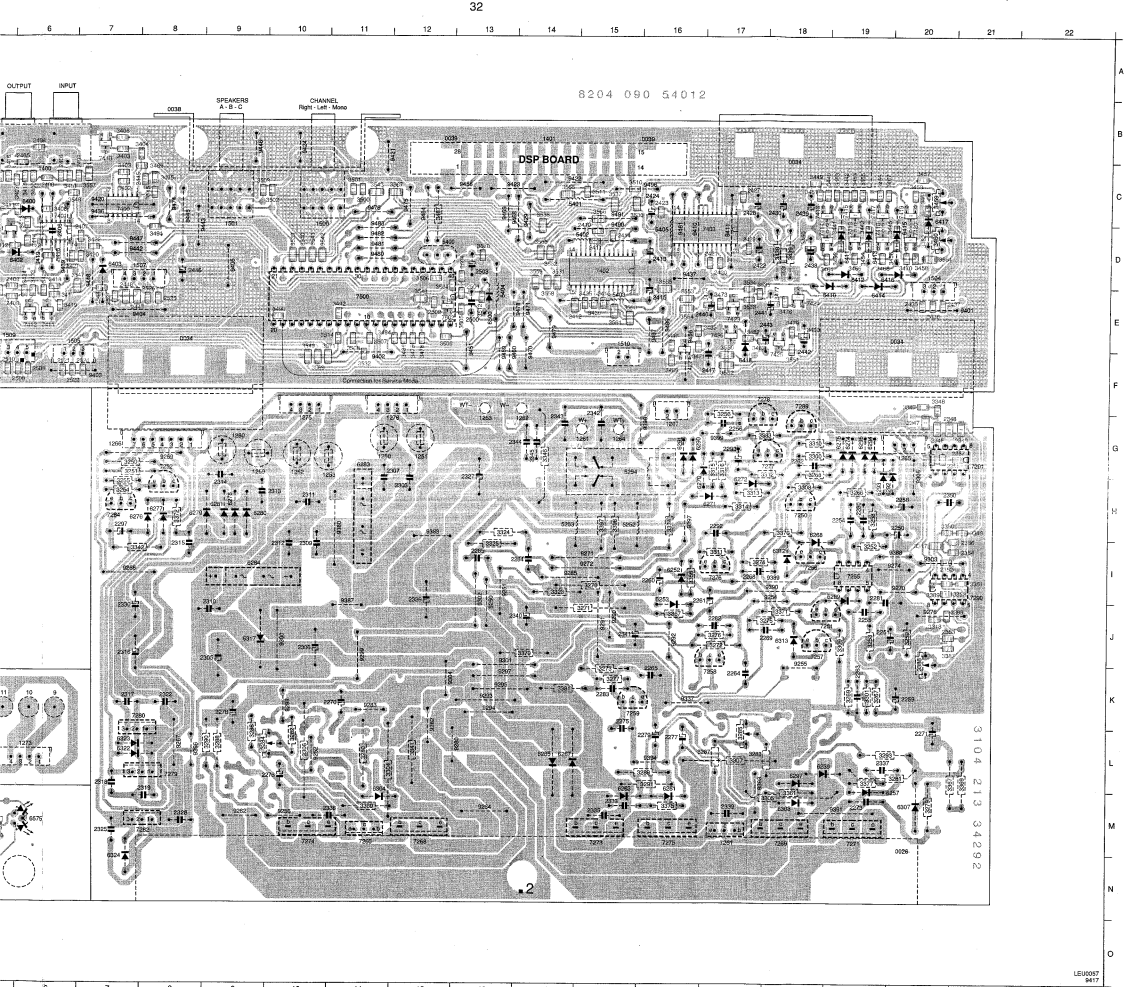
.2 PCB VERSION

31

32

POWER AND DIGITAL PART LAY-OUT



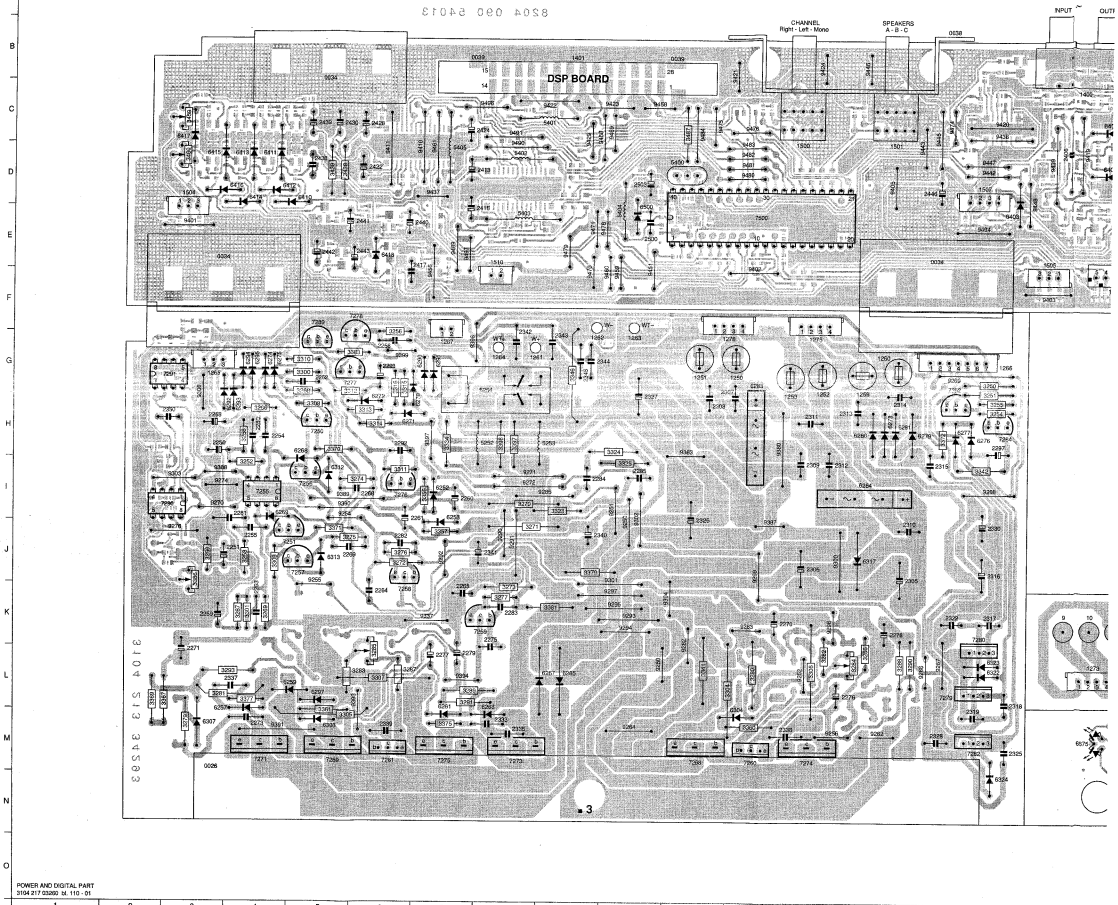


	0036	M20	2406	D6	3369	L21	3544	E7	7284	H7	9484	C12			
	0034	E8	2407	D6	3370	H16	3545	C6	7285	F18	9489	E16			
	0034	C18	2408	D6	3371	J18	3546	C6	7290	I21	9490	D15			
	0034	E19	2409	E5	3372	H8	3547	D6	7291	G21	9491	C15			
A	0038	B8	2410	D14	3375	M16	3548	E12	7400	C7	9495	E8			
	0039	B12	2411	D15	3377	L19	3549	E10	7401	C8	9496	C16			
	0039	B15	2412	E14	3379	J14	3550	E17	7402	D15	9497	E16			
	0041	M5	2413	D16	3381	K14	3551	F18	7403	D16					
	1250	G11	2414	D15	3383	G17	3552	F17	7410	B7					
	1251	G12	2415	E16	3386	K20	3553	E6	7411	E6					
	1252	G10	2416	E16	3387	J20	3554	E16	7412	E6					
	1253	H10	2417	F16	3388	J20	3555	D16	7413	C18					
B	1259	G9	2420	D17	3389	I20	3556	C5	7414	D18					
	1260	G9	2421	D17	3396	H15	3557	C7	7415	C19					
	1261	G14	2422	D17	3397	H15	3558	E14	7416	D19					
	1262	G14	2423	C16	3400	C8	3559	D14	7417	C19					
	1263	G13	2424	C16	3401	C8	3560	E15	7418	D19					
	1264	G15	2427	C17	3402	C7	3561	E15	7419	C20					
	1265	G20	2428	C17	3403	C7	3562	C20	7420	D20					
	1266	G7	2429	D17	3404	B7	3563	D14	7423	E17					
C	1267	G16	2430	C19	3405	C8	3564	C20	7424	E18					
	1268	F3	2435	E20	3406	B7	3565	D14	7425	F18					
	1270	B3	2436	E20	3407	C6	3566	C15	7426	E17					
	1272	D4	2437	E20	3408	C6	3567	C11	7427	F16					
	1273	L6	2438	D18	3409	C5	3568	F11	7500	E11					
	1274	L4	2439	C18	3410	D6	3569	F10	7502	E12					
	1275	G10	2440	E16	3411	C5	3570	D13	7575	M4					
	1276	G11	2441	E17	3412	D5	3571	E10	7576	M5					
D	1400	C6	2442	F18	3413	D6	3575	M5	7577	N4					
	1401	B14	2443	E17	3414	D6	3577	M4	9250	J13					
	1500	D10	2445	C7	3415	C6	3578	M4	9251	I13					
	1501	D9	2446	D6	3416	C5	3579	N5	9252	L10					
	1504	D20	2447	E7	3417	E8	3581	M4	9254	I18					
	1505	E6	2448	E7	3418	D6	3585	M4	9255	J18					
	1507	D7	2449	F5	3419	E8	5252	H15	9256	M10					
	1508	E5	2500	E13	3420	D7	5253	H14	9262	M9					
	1510	E15	2501	E13	3421	D6	5254	G15	9264	M13					
E	1575	N4	2502	C12	3422	D7	5255	D9	9266	L8					
	2250	H20	2503	D13	3423	D6	5400	D12	9267	L8					
	2251	J19	2504	D13	3424	D6	5401	C14	9268	J7					
	2254	H19	2505	F5	3425	D6	5402	D14	9269	G8					
	2255	J19	2509	F6	3426	E5	5403	E15	9270	I20					
	2256	G17	2510	F5	3430	E15	5404	E13	9271	I15					
	2258	H20	3511	F5	3435	E15	5405	D18	9272	I15					
F	2259	K20	2521	F6	3438	D18	6252	I16	9274	I19					
	2260	I16	2522	F5	3439	D18	6253	I16	9276	J20					
	2261	J16	3524	F6	3440	C19	6257	M19	9280	L13					
	2262	G18	2525	E8	3441	D19	6259	L18	9282	L12					
	2263	K19	2526	E8	3442	D19	6261	L16	9283	K11					
	2264	K17	2527	E7	3443	D19	6263	L15	9293	I14					
	2265	K16	2575	M4	3445	D19	6265	L14	9290	J15					
	2268	I17	3250	G7	3449	C18	6267	L14	9291	J15					
	2269	J17	3251	G7	3450	D18	6268	H18	9292	J16					
	2270	K10	3252	I19	3451	C18	6269	I19	9295	K13					
	2271	L20	3253	J10	3452	C19	6270	L16	9296	K12					
	2273	M19	3254	H7	3453	C19	6271	H17	9298	K14					
	2275	K19	3255	H7	3454	D19	6272	H17	9299	K19					
	2276	L9	3256	G17	3455	C19	6274	G19	9298	K19					
	2277	L16	3258	H19	3456	D20	6275	G19	9299	J11					
	2278	K9	3259	J20	3457	C20	6276	H7	9300	J12					
	2279	L16	3261	H19	3458	D20	6277	H8	9301	J13					
	2280	H19	3267	K19	3459	C20	6278	H8	9302	J13					
	2281	I19	3269	G18	3460	D20	6279	H9	9303	I22					
	2282	J17	3269	K19	3461	C20	6280	H9	9304	K13					
	2283	K15	3270	I15	3462	D20	6281	H9	9305	L5					
	2284	I13	3271	J15	3463	C19	6283	G11	9306	H20					
	2285	I13	3272	J17	3464	D18	6284	I9	9307	K18					
	2290	H17	3273	K15	3465	C19	6290	G16	9380	H11					
	2293	G17	3274	I17	3466	D19	6291	G16	9383	H12					
	2297	H7	3275	J17	3467	C19	6292	H20	9387	J11					
	2303	H12	3276	J17	3468	D19	6293	H19	9388	I20					
	2305	J8	3277	K15	3469	C20	6294	G19	9389	I18					
	2306	J10	3279	M20	3470	D20	6295	H19	9390	I18					
	2307	G11	3280	L11	3471	F16	6297	L18	9391	M18					
	2309	I10	3281	L20	3473	E17	6300	M18	9393	L17					
	2310	J9	3282	L10	3474	E17	6304	M11	9394	L16					
	2311	H10	3283	L17	3475	F12	6307	M20	9396	G16					
	2312	I10	3284	L10	3476	E18	6312	I18	9397	H16					
	2313	H10	3285	L17	3477	E18	6313	J18	9399	G17					
	2314	H9	3286	L9	3478	F12	6317	J18	9401	E21					
	2315	I8	3287	L16	3479	E18	6322	L7	9402	F11					
	2316	J7	3288	L9	3480	E18	6323	L7	9403	F7					
	2317	K7	3289	L16	3481	F12	6324	N7	9404	E7					
	2318	L7	3290	L8	3482	E17	6400	C6	9405	D9					
	2319	M7	3291	L16	3483	E17	6401	C5	9410	D18					
K	2322	K9	3293	L19	3484	E11	6402	C5	9411	D17					
	2325	M7	3300	G18	3485	E17	6403	C7	9419	D8					
	2326	J12	3301	K19	3486	E16	6410	E18	9420	C7					
	2327	H13	3304	L12	3487	C12	6411	D19	9421	C12					
	2328	M8	3305	M17	3488	F16	6412	D19	9422	C14					
	2330	J7	3306	L10	3489	C8	6413	D19	9423	C13					
	2333	M15	3307	L17	3490	E10	6414	E19	9424	B10					
	2335	M15	3308	H18	3491	D8	6415	C20	9425	D14					
L	2337	L19	3309	J19	3492	E11	6416	D19	9426	C7					
	2338	M10	3310	G18	3500	C11	6417	C20	9427	D16					
	2339	M17	3311	I17	3501	C11	6418	F17	9439	D8					
	2340	J13	3312	G17	3502	C9	6500	E13	9442	D7					
	2341	J15	3313	I17	3503	C9	6575	M6	9443	D9					
	2342	G15	3314	H17	3504	E12	6576	M3	9445	G8					
	2343	G14	3315	G17	3505	E13	7250	H18	9446	B9					
	2344	G13	3316	G17	3506	D12	7251	J18	9447	D7					
M	2345	G14	3317	G9	3507	E11	7252	G8	9448	E7					
	2346	G20	3318	J20	3509	E12	7253	I19	9451	F13					
	2347	G20	3323	I14	3510	C15	7256	I18	9456	E16					
	2348	G20	3324	H13	3511	C15	7257	J18	9458	C13					
	2349	G21	3325	I13	3512	E13	7258	K17	9459	F13					
	2350	H20	3334	H16	3514	E10	7259	K15	9460	F14					
	2351	G20	3341	L12	3530	C15	7260	M11	9461	D16					
	2352	I20	3342	I7	3531	D14	7261	M17	9468	C13					
	2353	J20	3346	G14	3532	F11	7268	M12	9469	C13					
	2354	I21	3347	F20	3533	E17	7269	M18	9470	F14					
	2355	G20	3348	F20	3534	D17	7271	M19	9471	E14					
	2356	I21	3349	H21	3535	D17	7273	M15	9474	C8					
	2357	G20	3352	H20	3536	D18	7274	M10	9475	C12					
	2360	E4	3351	I21	3537	C15	7275	M16	9476	C11					
	2400	C6	3352	I21	3538	C14	7276	I17	9478	E14					
	2401	C6	3356	I16	3539	D10	7277	G17	9479	E14					
	2402	C7	3357	I16	3540	D10	7278	F12	9480	D11					
	2403	B7	3360	M11	3541	D10	7279	L8	9481	D11					
	2404	B6	3361	M18	3542	D10	7280	K7	9482	D11					
	2405	B6	3367	L21	3543	C11	7282	M7	9483	D11					

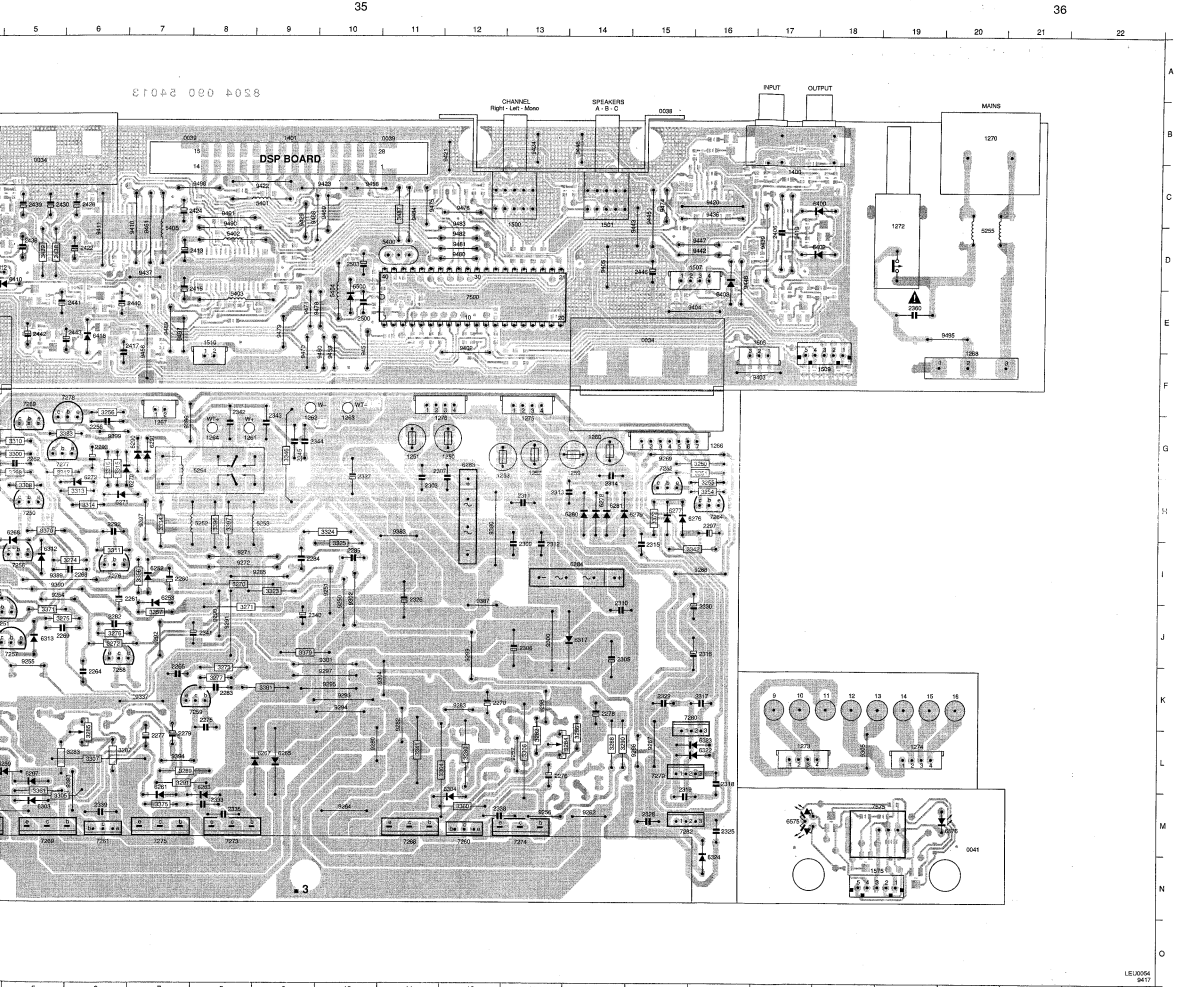
POWER AND DIGITAL COMPONENT LAYOUT

.3 PCB VERSION

POWER AND DIGITAL PART LAY-OUT



POWER AND DIGITAL PART
3104 217 03260 bl. 110 - 01



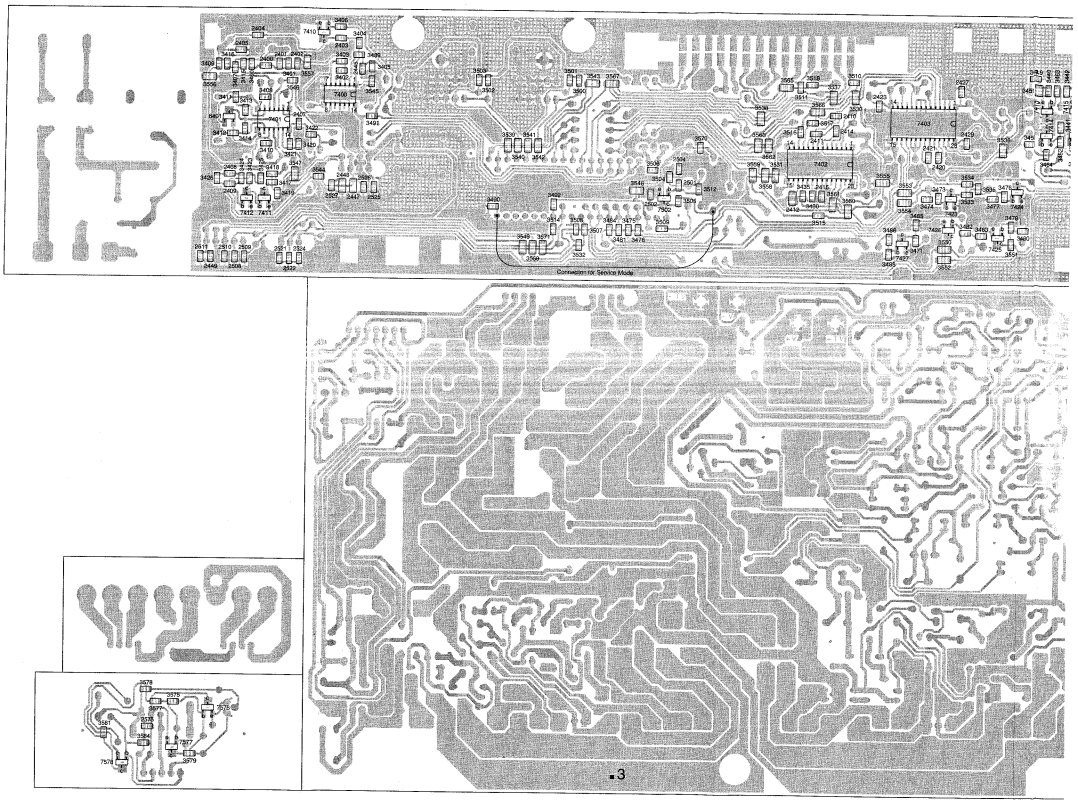
	0026	M3	3250	G16	6307	M3	9447	D16
	0034	C5	3251	G16	6312	I5	9446	E16
	0034	E15	3252	I4	6313	J5	9451	F10
	0034	E9	3253	J4	6317	J14	9456	F7
A	0038	B15	3254	H16	6322	L16	9458	C10
	0039	B7	3255	H16	6323	L16	9459	F10
	0039	B11	3256	G5	6324	N16	9460	F10
	0041	M20	3258	H4	6400	C17	9461	D7
	1250	G12	3259	J5	6402	D17	9468	C9
	1251	G11	3266	H4	6403	E16	9469	C10
B	1252	G13	3267	K4	6410	D5	9470	F9
	1253	H12	3268	G5	6411	D4	9471	E9
	1259	G14	3269	K4	6412	D4	9474	C15
	1260	G14	3270	I5	6413	D4	9475	C11
	1261	G8	3271	J5	6414	D4	9476	C12
	1262	G9	3272	J6	6415	D3	9478	E10
	1263	G10	3273	K5	6416	D4	9479	E9
	1264	G8	3274	I6	6417	C3	9480	D12
	1265	G3	3275	J5	6418	D6	9481	D12
C	1266	G16	3276	J5	6500	E10	9482	D12
	1267	G7	3277	K5	6575	M17	9483	D12
	1268	F20	3279	M3	6576	M20	9484	C11
	1270	B20	3280	L12	7250	H5	9489	E7
	1272	D19	3281	L3	7251	J4	9490	D6
	1273	L17	3282	L13	7252	G15	9491	C8
	1274	L19	3283	L6	7255	I4	9495	E19
D	1275	G13	3284	L14	7256	I5	9496	C8
	1276	G11	3285	L6	7257	J5	9497	E7
	1400	C17	3286	L14	7258	K5		
	1401	B9	3287	L4	7259	K6		
	1500	D13	3288	L14	7260	M12		
	1501	D14	3289	L7	7261	M6		
	1504	D9	3290	L14	7266	M11		
E	1505	E16	3291	L7	7269	M5		
	1507	D15	3293	L3	7271	M4		
	1509	F18	3300	G5	7273	M8		
	1510	E8	3301	K4	7274	M13		
	1575	N18	3304	L12	7275	M7		
	2250	H3	3305	M5	7276	I6		
	2251	J4	3306	L13	7277	G5		
	2254	H4	3307	L6	7278	F5		
	2255	J4	3308	H5	7279	L15		
F	2256	G6	3309	J4	7280	K15		
	2258	H3	3310	G5	7282	M16		
	2259	K3	3311	I5	7284	H16		
	2260	I7	3312	G5	7289	F5		
	2261	J6	3313	H6	7290	I2		
	2262	G6	3314	H6	7291	G2		
	2263	K4	3315	G6	7500	E12		
	2264	K6	3316	G5	7575	M18		
	2265	K7	3323	I3	9250	J10		
	2266	I6	3324	H15	9251	I10		
	2259	J5	3325	I10	9252	L13		
G	2270	K12	3334	H7	9254	I5		
	2271	L5	3341	L11	9255	J6		
	2273	M4	3342	I15	9256	M13		
	2275	K8	3346	G4	9262	M14		
	2276	L13	3356	I7	9264	M10		
	2277	L7	3357	J7	9266	L15		
H	2278	K14	3360	M15	9267	L16		
	2279	L7	3361	M5	9268	I16		
	2280	H4	3367	L3	9269	G15		
	2281	I4	3369	L2	9270	I3		
	2282	J6	3370	H5	9271	I8		
	2283	K8	3371	J5	9272	I8		
	2284	I8	3372	H15	9274	I3		
	2285	I10	3375	M7	9276	J3		
	2292	H5	3377	L4	9280	L10		
	2293	G6	3379	J9	9282	L11		
I	2297	H16	3381	K9	9283	K12		
	2303	H11	3383	G5	9285	I9		
	2305	J14	3386	K3	9290	J8		
	2306	J13	3396	H8	9291	J6		
	2307	G11	3397	H8	9292	J7		
	2309	I13	3438	D5	9293	K10		
	2310	J14	3439	D5	9294	K10		
J	2311	H13	3459	C3	9295	K10		
	2312	I13	3460	D3	9297	K10		
	2313	H13	3467	C11	9298	K13		
	2314	H14	3252	H8	9299	J12		
	2315	I15	5253	H9	9300	J13		
	2316	J16	5254	G8	9301	J10		
K	2317	K16	5255	D20	9302	J10		
	2318	L16	5400	D11	9303	I3		
	2319	M15	5401	C9	9304	K11		
	2322	K15	5402	D8	9305	L18		
	2325	M16	5403	E8	9306	H3		
	2326	J11	5404	E10	9337	K7		
	2327	H10	5405	D7	9380	H12		
	2328	M15	6262	I7	9383	H11		
	2330	J16	6263	I7	9387	J12		
	2333	M8	6257	M3	9388	I3		
	2335	M8	6259	L4	9389	I5		
L	2337	L4	6261	L7	9390	I5		
	2338	M12	6263	L8	9391	M4		
	2339	M9	6265	L9	9393	L6		
	2340	J9	6267	L9	9394	L7		
	2341	J6	6268	H5	9396	G7		
	2342	G8	6269	I4	9397	H7		
	2343	G9	6270	H7	9399	G6		
	2344	G9	6271	H6	9401	E3		
M	2345	G9	6272	H8	9402	F12		
	2350	H2	6274	G4	9403	F16		
	2360	E19	6275	G4	9404	E15		
	2406	D17	6276	H15	9405	D14		
	2413	D7	6277	H15	9410	D7		
	2415	E7	6278	H14	9411	D6		
	2417	E8	6279	H15	9419	D17		
N	2422	D6	6280	H14	9420	C16		
	2424	C7	6281	H14	9421	C12		
	2428	C6	6283	G12	9422	C9		
	2430	C5	6284	I14	9423	C9		
	2436	D5	6290	G7	9424	B13		
	2439	C5	6291	G7	9429	D9		
O	2440	E7	6292	H4	9436	C16		
	2441	E8	6293	H4	9437	D7		
	2442	E5	6294	G4	9439	D17		
	2443	D5	6295	G4	9442	D16		
	2446	D15	6297	L5	9443	D15		
	2500	E16	6300	M5	9445	C15		
	2503	D15	6304	M12	9446	B14		

POWER AND DIGITAL CHIPS COMPONENT LAYOUT

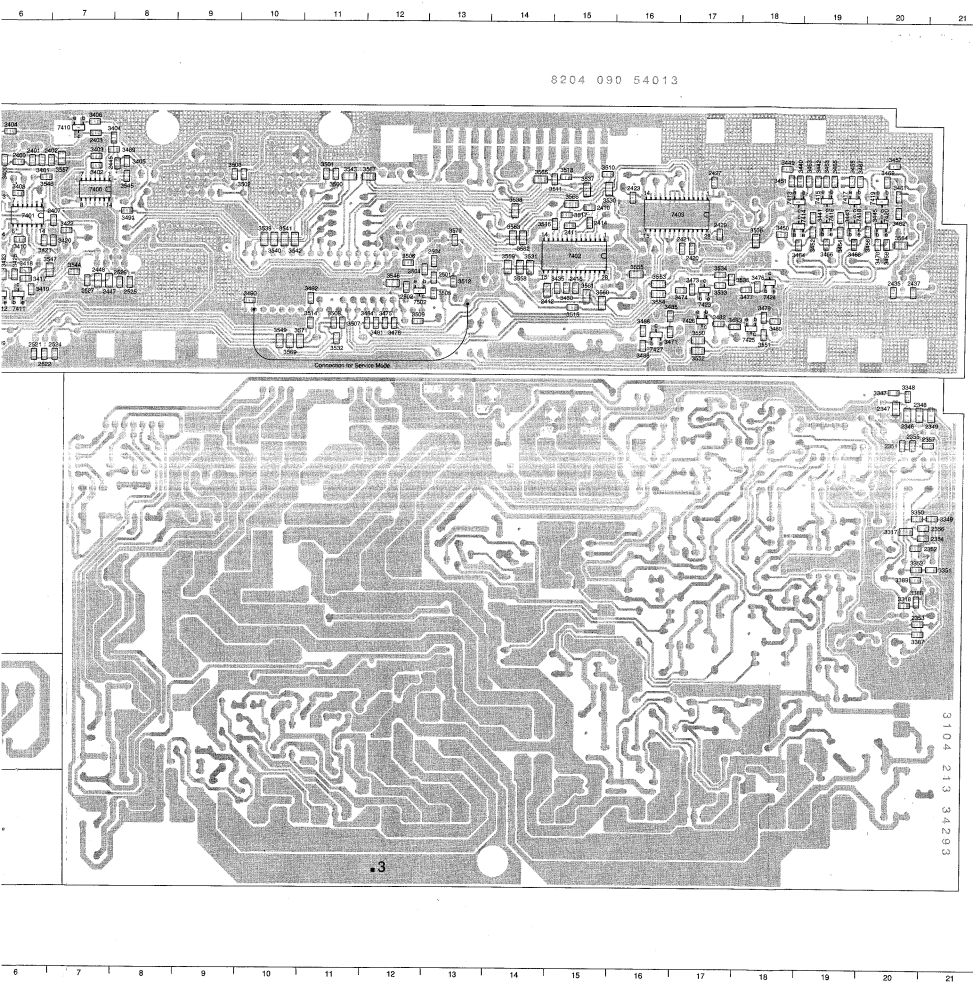
.3 PCB VERSION

POWER AND DIGITAL PART LAY-OUT

8204 090 54013



POWER AND DIGITAL PART
3104 217 03360 BL 110 - 02 (.3 PRINT BOARD)



2346	G20	3478	E12
2347	G20	3479	E16
2348	G20	3480	E16
2349	G21	3481	E12
2351	G20	3482	E17
2352	I21	3483	E17
2353	J20	3484	E11
2354	I21	3485	E16
2355	G20	3486	E16
2356	I21	3488	F18
2357	G20	3489	C8
2400	C6	3490	E10
2401	C6	3491	D8
2402	C6	3492	E11
2403	B7	3500	C11
2404	B6	3501	C11
2405	B6	3502	C9
2407	D6	3503	C9
2408	D5	3504	E12
2409	E8	3505	E13
2410	C15	3506	D12
2411	D15	3507	E11
2412	E14	3508	E11
2414	D15	3509	E12
2416	E15	3510	C15
2420	D17	3511	C14
2421	D17	3512	E13
2423	C16	3514	E11
2427	C17	3515	E16
2429	D17	3516	D14
2436	E20	3517	D15
2437	E20	3518	C15
2446	C7	3530	C15
2447	E7	3531	D14
2448	E7	3532	F11
2449	F5	3533	E17
2501	E13	3534	D17
2502	E12	3535	E17
2504	D13	3536	D18
2506	F5	3537	C15
2509	F6	3538	C14
2510	F5	3539	D10
2511	F5	3540	D10
2521	F6	3541	D10
2522	F6	3542	D10
2524	F6	3543	C11
2525	E8	3544	D7
2526	E8	3545	C8
2527	E7	3546	C6
2575	M4	3547	D6
3217	I20	3548	E12
3318	J20	3549	E10
3347	F20	3550	B17
3348	F20	3551	F18
3349	H21	3552	F17
3350	H22	3553	E16
3351	I21	3554	E16
3352	I20	3555	D16
3387	J20	3556	C6
3388	J20	3557	C7
3389	I20	3558	B14
3400	C6	3559	J14
3401	C6	3560	E15
3402	C7	3561	E15
3403	C7	3562	D14
3404	B7	3563	D14
3405	C8	3564	D20
3406	B7	3565	C14
3407	C6	3566	C15
3408	C6	3567	C11
3409	C5	3569	F10
3410	D6	3570	D13
3411	C5	3571	E10
3412	D5	3575	M5
3413	C6	3577	M4
3414	D6	3578	M4
3415	C6	3579	N5
3416	C5	3581	M3
3417	E6	3584	M4
3418	D6	6401	D5
3419	E6	7400	C7
3420	D7	7401	D6
3421	D6	7402	D15
3422	D7	7403	D16
3423	D6	7410	B7
3424	D6	7411	E8
3425	D6	7412	E6
3426	E6	7413	C16
3430	E15	7414	D19
3435	E15	7415	C19
3440	C19	7416	D19
3441	D19	7417	C19
3442	D19	7418	D19
3443	D19	7419	C20
3446	C20	7420	D20
3449	C18	7423	E17
3450	D18	7424	E18
3451	C18	7425	F18
3452	D19	7426	E17
3453	C19	7427	F16
3454	D19	7502	E12
3455	C19	7576	M5
3456	C20	7577	N5
3457	C20	7578	N4
3458	D20		
3461	C20		
3462	D20		
3463	C19		
3464	D18		
3465	C19		
3466	D19		
3467	C19		
3468	D19		
3469	C20		
3470	D20		
3471	F16		
3473	E17		
3474	E16		
3475	E12		
3476	E18		
3477	E18		

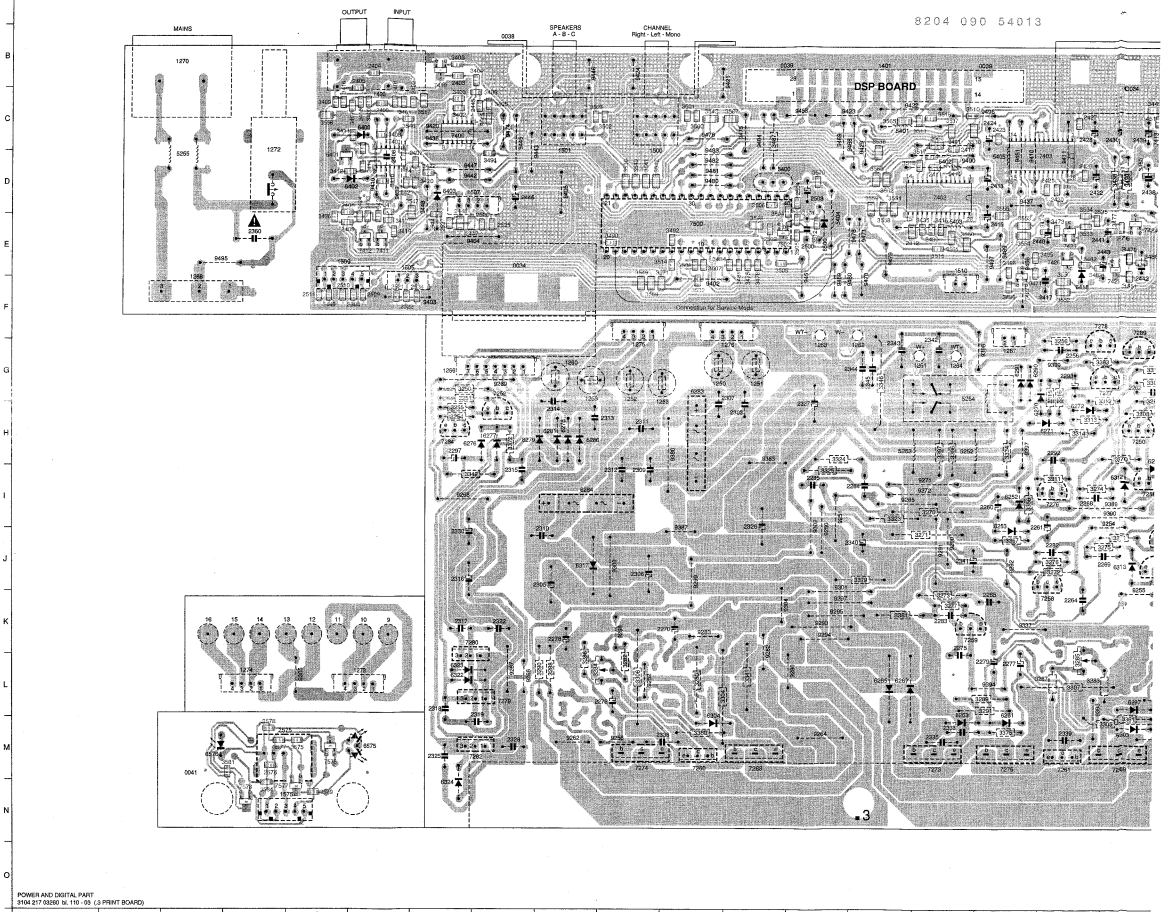
LEU0059
9418

POWER AND DIGITAL
COMBI COMPONENT LAYOUT

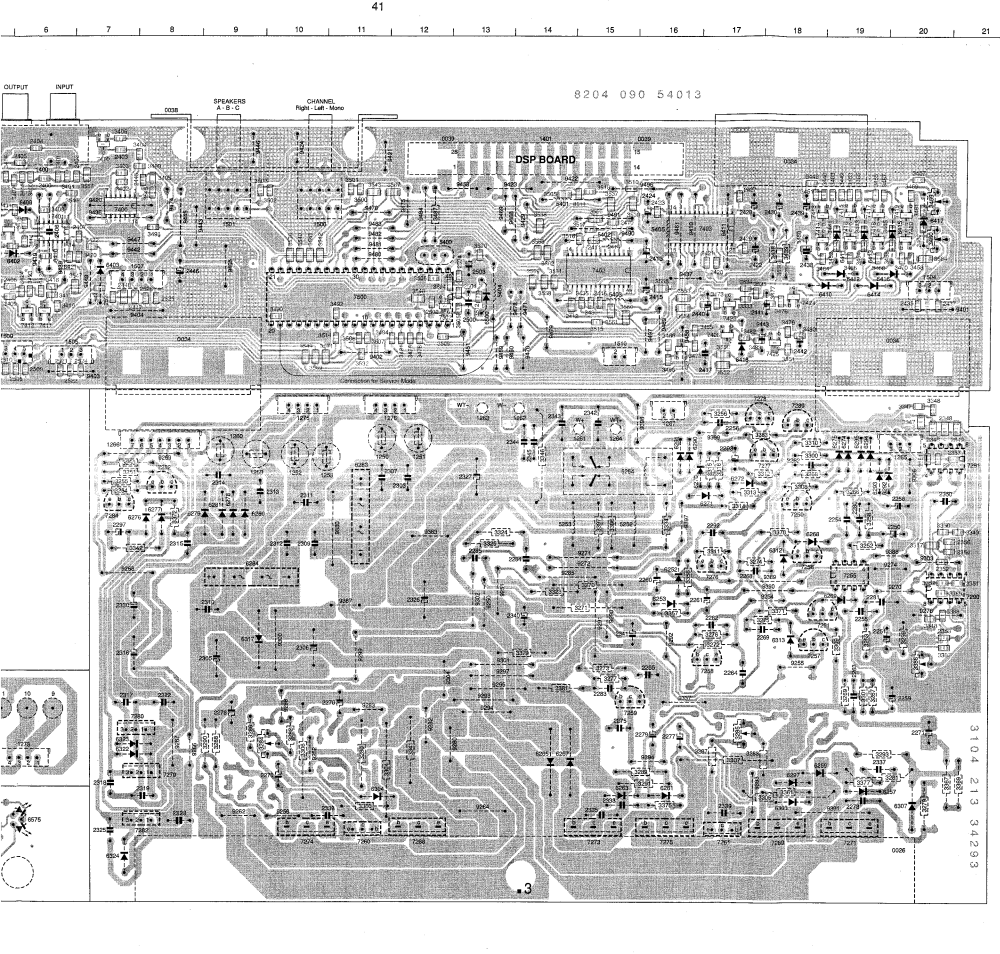
.3 PCB VERSION

40 41

POWER AND DIGITAL PART LAY-OUT

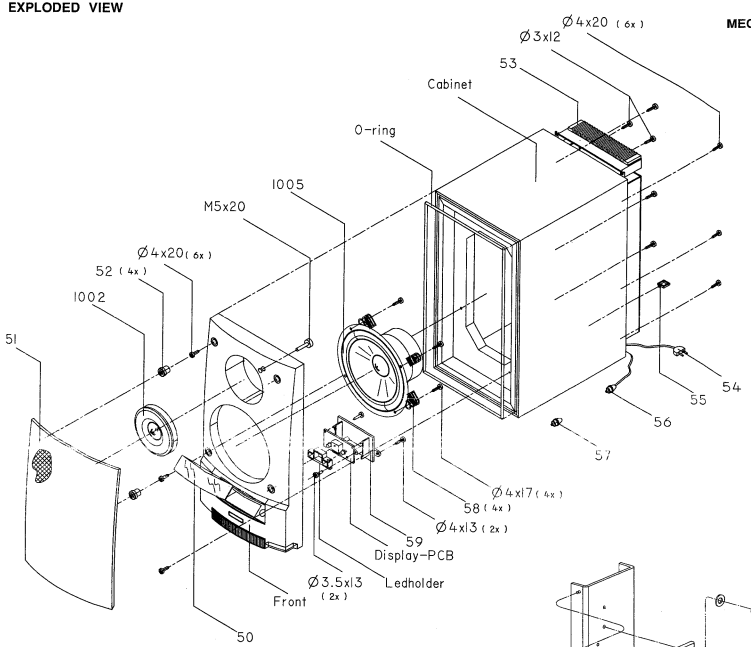


POWER AND DIGITAL PART
3104 217 33260 lit. 110 -03 (.3 PRINT BOARD)



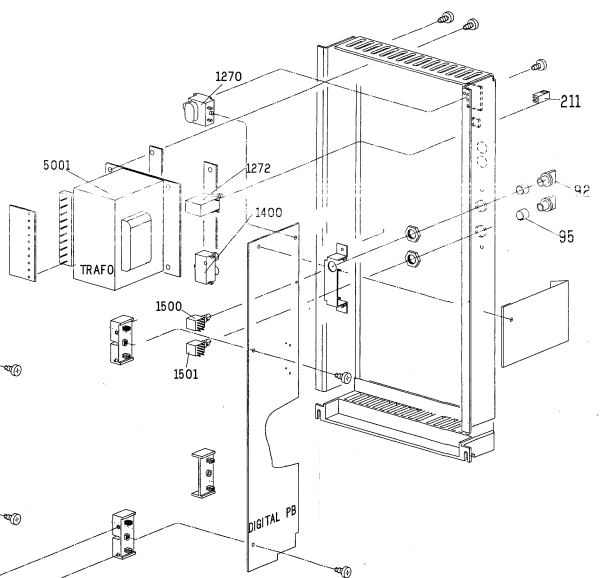
	0026	M20	2405	D6	3370	H18	3540	D10	7279	L8	9480	D11
	0034	E8	2407	D6	3371	J18	3541	D10	7280	K7	9481	D11
	0034	C18	2408	D5	3372	H8	3542	D18	7282	M7	9482	D11
A	0034	E19	2409	E5	3375	M16	3543	C11	7284	H7	9483	D11
	0038	B8	2410	C16	3377	L19	3544	E7	7286	F18	9484	C12
	0038	B12	2411	D15	3379	J14	3545	C8	7290	I21	9489	E16
	0039	B15	2412	E14	3381	K14	3546	C6	7291	G21	9490	D15
	0041	M3	2413	D16	3383	G17	3547	D6	7400	C7	9491	C15
	1250	G11	2414	D15	3386	K20	3548	E12	7401	C6	9495	E3
	1251	G12	2415	E16	3387	J20	3549	E10	7402	D15	9496	C16
	1252	G10	2416	E15	3388	J20	3550	E17	7403	D16	9497	E16
	1253	H10	2417	F16	3389	I21	3551	F18	7410	B7		
B	1259	G9	2420	D17	3396	H15	3552	F17	7411	E8		
	1260	G9	2421	D17	3397	H15	3553	E16	7412	E9		
	1261	G14	2422	D17	3400	C6	3554	E16	7413	C18		
	1262	G14	2423	C16	3401	C6	3555	D18	7414	D18		
	1263	G13	2424	C16	3402	C7	3556	C5	7415	C19		
	1264	G15	2427	C17	3403	C7	3557	C7	7416	D19		
	1265	G20	2429	C17	3404	B7	3558	E14	7417	C19		
C	1266	G7	2429	D17	3405	C8	3559	D14	7418	D19		
	1267	G16	2430	C18	3406	B7	3560	E15	7419	C20		
	1268	F3	2435	E20	3407	C6	3561	E15	7420	D20		
	1270	B3	2437	E20	3408	C6	3562	D14	7423	E17		
	1272	D4	2438	D18	3409	C5	3563	D14	7424	E18		
	1273	L6	2439	C18	3410	C6	3564	D20	7425	F18		
	1274	L4	2440	E18	3411	C5	3565	C14	7426	E17		
	1275	G10	2441	E17	3412	C6	3566	C15	7427	F16		
D	1276	G11	2442	F18	3413	D6	3567	C11	7500	E11		
	1400	C6	2443	E17	3414	D6	3569	F10	7502	E12		
	1501	B14	2445	C7	3415	C6	3570	D13	7575	M4		
	1502	D10	2446	D8	3416	C5	3571	E10	7576	M5		
	1503	D6	2447	E7	3417	B6	3575	M5	7577	N4		
	1504	D20	2448	E7	3418	D6	3577	M4	7578	N4		
	1505	E6	2449	F5	3419	E6	3578	M4	9250	J13		
	1507	D7	2500	E13	3420	D7	3579	N5	9251	I13		
E	1509	E5	2501	E13	3421	D6	3581	M3	9252	L10		
	1510	E15	2502	E12	3422	D7	3584	N4	9254	I18		
	1575	N4	2503	D13	3423	D6	3252	H15	9255	J18		
	2250	H20	2504	D13	3424	D6	3253	H14	9256	M18		
	2251	J19	2508	F6	3425	D6	3254	G15	9262	M9		
	2254	H19	2509	F6	3426	E5	3255	D8	9264	M13		
	2255	J19	2510	F5	3430	E16	3400	D12	9266	L8		
	2256	G17	2511	F5	3435	E15	3401	C14	9267	L8		
	2258	H20	2521	F6	3436	D18	3402	D15	9268	I7		
F	2259	K20	2522	F6	3439	D18	3403	E15	9269	G8		
	2260	I16	2524	F6	3440	C19	3404	E13	9270	I20		
	2261	J16	2525	E6	3441	D19	3405	D16	9271	I15		
	2262	G19	2526	E8	3442	C19	6252	I16	9272	I15		
	2263	K19	2527	E7	3443	D19	6253	I16	9274	I18		
	2264	K17	2575	M4	3445	D19	6257	M19	9276	J20		
	2265	K16	3250	G7	3449	C18	6259	L18	9280	L18		
	2268	I17	3251	G7	3450	D18	6261	L16	9282	L12		
	2269	J17	3252	I19	3451	C18	6263	L15	9283	K11		
	2270	K19	3253	J19	3452	D19	6265	L14	9285	I14		
	2271	L20	3254	H17	3453	D19	6267	L13	9287	I15		
	2272	M19	3255	I17	3454	D19	6268	I18	9291	J15		
	2273	K18	3256	M17	3455	C19	6269	J19	9292	J16		
G	2276	L9	3258	H19	3456	D20	6270	H16	9293	K13		
	2277	L18	3259	J20	3457	C20	6271	I17	9294	K12		
	2278	K9	3266	H19	3458	D20	6272	H17	9296	K19		
	2279	L16	3267	K19	3459	C20	6274	G19	9297	K15		
	2280	H18	3268	G19	3460	D20	6275	G20	9298	K10		
	2281	I12	3269	K19	3461	C20	6276	H7	9299	J11		
	2282	J17	3270	I15	3462	D20	6277	H8	9300	J10		
	2283	K15	3271	J15	3463	D19	6278	H9	9301	J13		
	2284	I13	3272	J17	3464	D18	6279	H8	9302	J13		
	2285	I13	3273	K15	3465	C19	6280	H9	9303	I20		
	2292	H17	3274	I17	3466	D19	6281	H9	9304	K13		
	2293	G17	3275	J17	3467	C19	6283	G11	9305	L8		
	2297	H7	3276	J17	3468	D19	6284	I9	9306	H20		
	2303	H15	3277	K15	3469	C20	6290	G16	9307	K16		
	2305	J8	3279	M20	3470	D20	6291	G16	9380	H11		
	2306	J16	3280	L11	3471	F16	6292	H20	9383	H12		
	2307	G11	3281	L20	3473	E17	6293	H19	9387	J11		
	2309	I10	3282	L10	3474	E17	6294	G18	9388	I20		
	2310	J9	3283	L17	3475	F12	6295	G19	9389	I18		
	2311	H10	3284	L10	3476	E18	6297	L5	9390	I18		
J	2312	I10	3285	L17	3477	E18	6303	M18	9391	M19		
	2313	H10	3286	L9	3478	F12	6304	M11	9393	L17		
	2314	H9	3287	L16	3479	E18	6307	M20	9394	L16		
	2315	I8	3288	L9	3480	E18	6312	I18	9396	G18		
	2316	J7	3289	L16	3481	F12	6313	J18	9397	H16		
	2317	K7	3290	L9	3482	E17	6317	J9	9399	G17		
	2318	L7	3291	L16	3483	E17	6322	L7	9401	E21		
	2319	M7	3293	L19	3484	E11	6323	L7	9402	F11		
	2322	K8	3300	G19	3485	E17	6324	M7	9403	F7		
	2325	M7	3301	K19	3486	E16	6400	C6	9404	E7		
	2326	J12	3304	L13	3487	C12	6401	D5	9405	D9		
	2327	H13	3305	M17	3488	F16	6402	D5	9410	D16		
	2328	M8	3306	L10	3489	C8	6403	D7	9411	D17		
	2330	J7	3307	L17	3490	E10	6410	E18	9419	D6		
	2333	M15	3308	H18	3491	D8	6411	D19	9420	C7		
	2335	M15	3309	J18	3492	E11	6412	D19	9421	D12		
L	2337	L19	3310	G18	3500	C11	6413	D19	9422	C14		
	2338	M20	3311	I17	3501	C11	6414	E19	9423	C13		
	2339	M17	3312	G17	3502	C9	6415	D20	9424	B10		
	2340	J13	3313	H17	3503	C9	6416	D19	9429	D14		
	2341	J15	3314	H17	3504	E12	6417	C20	9436	C7		
	2342	G15	3315	G17	3505	E13	6418	F17	9437	D16		
	2343	G14	3316	G17	3506	D12	6500	E13	9438	D6		
	2344	G13	3317	I23	3507	E11	6575	M6	9442	D7		
	2345	G14	3318	J20	3508	E11	6576	M5	9443	D9		
M	2346	G20	3323	I14	3509	E12	7250	H18	9445	C8		
	2347	G20	3324	H13	3510	C15	7251	J18	9446	B8		
	2348	G20	3325	I13	3511	C14	7252	G8	9447	D7		
	2349	G21	3334	H16	3512	E13	7255	I19	9448	E7		
	2350	H20	3341	L12	3514	E10	7256	I18	9451	F13		
	2351	G20	3342	I7	3515	E15	7257	J18	9456	E16		
	2352	I20	3346	G14	3516	D14	7258	K17	9458	C13		
N	2353	J20	3347	F20	3517	D14	7259	K15	9459	F13		
	2354	I21	3348	F20	3518	C15	7260	M11	9460	F14		
	2355	G20	3349	H21	3520	C15	7261	M17	9461	D16		
	2356	I21	3350	H20	3531	D14	7268	M12	9468	D13		
	2357	G20	3351	I21	3532	F11	7269	M18	9469	C13		
	2360	E4	3352	I20	3533	E17	7271	M19	9470	F14		
	2400	C6	3356	I16	3534	D17	7273	M15	9471	E14		
	2401	C6	3357	J16	3535	D17	7274	M10	9474	C8		
	2402	C7	3360	M11	3536	D18	7275	M16	9476	C12		
	2403	B7	3361	M18	3537	C15	7276	I17	9476	C11		
	2404	B6	3367	L21	3538	C14	7277	G17	9478	E14		
O	2405	B5	3369	L21	3539	D10	7278	F17	9479	E14		

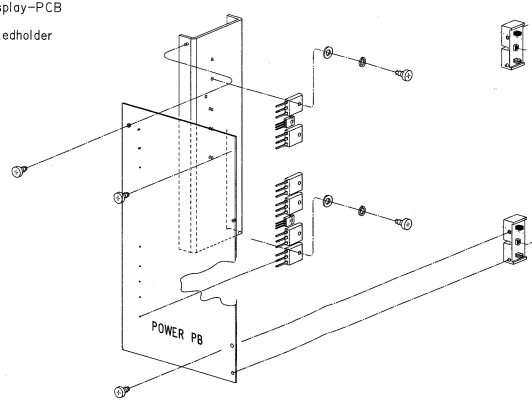
EXPLODED VIEW



MECHANICAL PARTS BACKSIDE

92	4822 492 61974	KNOB
95	4822 410 60119	SPRING
211	4822 413 31586	POWER BUTTON
1270	4822 265 31015	MAINS SOCKET
1272	4822 276 13224	POWER SWITCH
1400	4822 267 41064	CINCH SOCKET
1500	4822 273 20367	ROTARY SWITCH
1501	4822 273 20367	ROTARY SWITCH
5001	4822 146 31364	MAINS TRAFO





MECHANICAL PARTS

	4822 218 10447	REMOTE RH6860
50	4822 459 40752	WINDOW
51	4822 458 50502	GRILLE
52	4822 325 80223	GROMMET
53	4822 460 60593	ORNAMENTAL PROFILE
54	4822 321 10249	MAINS CORD
55	4822 401 11523	CABLE CLAMP
56	4822 321 61536	CORDSET COAX 6 M
57	4822 264 30327	CINCH PLUG 75 Ω
58	4822 403 70734	MOUNT. BRACKET
1002	4822 240 70265	TWEET 00 11601/T8FF
1005	4822 240 60345	WOOF. AD 70623/W8

MISCELLANEOUS

41	4822 255 41332	LED HOLDER
1250	4822 071 52002▲	FUSE 2A
1251	4822 071 52002▲	FUSE 2A
1252	4822 071 52002▲	FUSE 2A
1253	4822 071 52002▲	FUSE 2A
1259	4822 071 55001▲	FUSE 500MA
1260	4822 071 55001▲	FUSE 500MA
1270	4822 265 31015	MAINS SOCKET
1272	4822 276 13224	POWER SWITCH
1400	4822 267 41064	CINCH SOCKET
1401	4822 214 52205	DSP UNIT
1500	4822 273 20367	ROTARY SWITCH
1501	4822 273 20367	ROTARY SWITCH

CAPACITORS

2250	4822 124 40242	1µF 20% 63V
2251	4822 124 40244	2,2µF 20% 63V
2254	4822 122 33195	100pF 10% 50V
2255	4822 122 33195	100pF 10% 50V
2256	4822 126 11714	4,7nF 20%
2258	4822 124 40248	10µF 20% 63V
2259	4822 124 40196	220µF 20% 16V
2260	4822 124 41643	100µF 20% 16V
2261	4822 124 41643	100µF 20% 16V
2262	4822 122 33849	150pF 10%Y5P 50V
2263	4822 122 33195	100pF 10% 50V
2264	4822 126 11978	470pF 10%YB 500V
2265	4822 122 33354	150pF 500V
2268	4822 122 10466	220pF 10% 50V
2269	4822 122 10466	220pF 10% 50V
2270	4822 124 41596	22µF 20% 50V
2271	4822 124 40771	47µF 20% 100V
2273	4822 122 10466	220pF 10% 50V
2275	4822 122 31199	22pF 2% 500V
2276	4822 124 41584	100µF 20% 10V
2277	4822 124 41584	100µF 20% 10V
2278	4822 124 41596	22µF 20% 50V
2279	4822 124 41596	22µF 20% 50V
2280	4822 122 33195	100pF 10% 50V
2281	4822 122 33195	100pF 10% 50V
2282	4822 122 33197	1nF 10% 50V
2283	4822 122 33197	1nF 10% 50V
2284	4822 121 42007	100nF 10% 100V
2285	4822 121 42007	100nF 10% 100V
2292	4822 121 41854	150nF 5% 63V
2293	5322 124 41431	22µF 20% 35V
2297	4822 124 40248	10µF 20% 63V
2303	4822 121 43875	47nF 5% 250V
2305	4822 124 80563	4700µF 20% 35V
2306	4822 124 80563	4700µF 20% 35V
2307	4822 121 43875	47nF 5% 250V
2309	4822 121 43875	47nF 5% 250V
2310	4822 121 42007	100nF 10% 100V
2311	4822 121 42007	100nF 10% 100V
2312	4822 121 42007	100nF 10% 100V
2313	4822 121 43526	47nF 5% 250V
2314	4822 121 43526	47nF 5% 250V
2315	4822 121 43526	47nF 5% 250V
2316	4822 124 42057	3300µF 20% 25V
2317	5322 121 42386	100nF 5% 63V
2318	5322 121 42386	100nF 5% 63V
2319	5322 121 42386	100nF 5% 63V
2322	5322 121 42386	100nF 5% 63V
2325	5322 121 42386	100nF 5% 63V
2326	4822 124 80878	4700µF 20% 63V
2327	4822 124 80878	4700µF 20% 63V
2328	5322 121 42386	100nF 5% 63V
2330	4822 124 22263	220µF 20% 25V
2333	4822 122 33195	100pF 10% 50V
2335	4822 122 33849	150pF 10%Y5P 50V
2337	4822 122 10466	220pF 10% 50V
2338	4822 122 33197	1nF 10% 50V
2339	4822 122 33197	1nF 10% 50V
2340	4822 124 40771	47µF 20% 100V
2341	4822 124 40771	47µF 20% 100V
2342	4822 122 10466	220pF 10% 50V
2343	4822 122 10466	220pF 10% 50V
2344	4822 122 10466	220pF 10% 50V
2345	4822 122 10466	220pF 10% 50V
2346	4822 126 12103	680nF 80%20 50V
2347	4822 126 12103	680nF 80%20 50V
2348	4822 126 12103	680nF 80%20 50V
2349	4822 126 12103	680nF 80%20 50V
2350	4822 121 43526	47nF 5% 250V
2351	5322 122 32654	22nF 10% 63V
2352	5322 122 32531	100pF 5% 50V
2353	5322 122 32531	100pF 5% 50V
2354	5322 122 32654	22nF 10% 63V
2355	5322 122 32654	22nF 10% 63V
2356	5322 122 32654	22nF 10% 63V
2357	5322 122 32531	100pF 5% 50V
2360	4822 126 12224	4,7nF 20% 125V
2400	5322 122 31865	1,5nF 10% 63V
2401	5322 122 31863	330pF 5% 50V
2402	4822 122 33575	220pF 5%NPO 50V
2403	5322 122 32654	22nF 10% 63V
2404	4822 122 33342	33nF 10% 63V
2405	4822 122 33575	220pF 5%NPO 50V
2406	4822 126 12787	330pF 10% 50V
2407	4822 122 33893	18nF 10% 63V
2408	4822 122 33336	8,2nF 10% 50V
2409	5322 122 31863	330pF 5% 50V
2410	4822 122 33177	10nF 20% 50V

2411	4822 122 33177	10nF 20% 50V
2412	4822 122 32542	47nF 10% 63V
2413	4822 124 40248	10µF 20% 63V
2414	5322 126 10223	4,7nF 10% 63V
2415	4822 124 40248	10µF 20% 63V
2416	5322 126 10223	4,7nF 10% 63V
2417	4822 121 51252	470nF 5% 63V
2420	5322 122 34123	1nF 10% 50V
2421	5322 122 34123	1nF 10% 50V
2422	4822 124 40242	1µF 20% 63V
2423	5322 126 10223	4,7nF 10% 63V
2424	4822 124 40433	47µF 20% 25V
2427	5322 126 10223	4,7nF 10% 63V
2428	4822 124 40433	47µF 20% 25V
2429	5322 126 10223	4,7nF 10% 63V
2430	4822 124 40433	47µF 20% 25V
2435	5322 122 32268	470pF 5%
2437	5322 122 32268	470pF 5%
2438	4822 121 51252	470nF 5% 63V
2439	4822 124 40248	10µF 20% 63V
2440	4822 124 40246	4,7µF 20% 63V
2441	4822 124 40246	4,7µF 20% 63V
2442	4822 124 40246	4,7µF 20% 63V
2443	4822 124 40433	47µF 20% 25V
2445	5322 122 32658	22pF 5% 50V
2446	4822 124 40248	10µF 20% 63V
2447	4822 122 31947	100nF 20% 63V
2448	4822 122 31947	100nF 20% 63V
2449	5322 122 32654	22nF 10% 63V
2500	4822 121 42408	220nF 5% 63V
2501	4822 122 33177	10nF 20% 50V
2502	5322 122 32654	22nF 10% 63V
2503	4822 124 40433	47µF 20% 25V
2504	5322 126 10223	4,7nF 10% 63V
2508	5322 122 32531	100pF 5% 50V
2509	5322 122 32531	100pF 5% 50V
2510	5322 122 32531	100pF 5% 50V
2511	5322 122 32531	100pF 5% 50V
2521	5322 122 32531	100pF 5% 50V
2522	5322 122 32531	100pF 5% 50V
2524	5322 122 32531	100pF 5% 50V
2525	5322 122 32531	100pF 5% 50V
2526	5322 122 32531	100pF 5% 50V
2527	5322 122 32531	100pF 5% 50V
2575	5322 122 32654	22nF 10% 63V

RESISTORS

3250	4822 116 52233	10k 5% 0,5W
3251	4822 116 52233	10k 5% 0,5W
3252	4822 050 11002	1k 1% 0,4W
3253	4822 050 11002	1k 1% 0,4W
3254	4822 116 52284	47k 5% 0,5W
3255	4822 050 11002	1k 1% 0,4W
3256	4822 116 52233	10k 5% 0,5W
3258	4822 116 52257	22k 5% 0,5W
3259	4822 116 52257	22k 5% 0,5W
3266	4822 116 52228	680Ω 5% 0,5W
3267	4822 116 52222	390Ω 5% 0,5W
3268	4822 116 52257	22k 5% 0,5W
3269	4822 116 52257	22k 5% 0,5W
3270	4822 116 83923▲	1k5 5% 2W
3271	4822 116 83923▲	1k5 5% 2W
3272	4822 052 10471▲	470Ω 5% 0,33W
3273	4822 052 10471▲	470Ω 5% 0,33W
3274	4822 116 52256	2k2 5% 0,5W
3275	4822 116 52256	2k2 5% 0,5W
3276	4822 116 52188	27Ω 5% 0,5W
3277	4822 116 52188	27Ω 5% 0,5W
3279	4822 052 10479▲	47Ω 5% 0,33W
3280	4822 053 11102▲	1k 5% 2W
3281	4822 053 11472▲	4k7 5% 2W
3282	4822 116 52283	4k7 5% 0,5W
3283	4822 116 52283	4k7 5% 0,5W
3284	4822 100 11683	2k 30%LIN 0.2W
3285	4822 100 11683	2k 30%LIN 0.2W
3286	4822 116 52243	1k5 5% 0,5W
3287	4822 116 52243	1k5 5% 0,5W
3288	4822 053 10222▲	2k2 5% 1W
3289	4822 053 10222▲	2k2 5% 1W
3290	4822 053 10302▲	3k 5% 1W
3291	4822 053 10302▲	3k 5% 1W
3293	4822 053 10103▲	10k 5% 1W
3300	4822 116 52243	1k5 5% 0,5W
3301	4822 050 11002	1k 1% 0,4W
3304	4822 113 80632▲	0Ω22 5% 4W
3305	4822 113 80632▲	0Ω22 5% 4W
3306	4822 113 80632▲	0Ω22 5% 4W
3307	4822 113 80632▲	0Ω22 5% 4W
3308	4822 116 52304	82k 5% 0,5W
3309	4822 116 52304	82k 5% 0,5W
3310	4822 116 52252	180k 5% 0,5W
3311	4822 116 52257	22k 5% 0,5W
3312	4822 116 52233	10k 5% 0,5W
3313	4822 116 52244	15k 5% 0,5W
3314	4822 116 52271	33k 5% 0,5W
3315	4822 116 52211	150Ω 5% 0,5W
3316	4822 050 11002	1k 1% 0,4W
3317	4822 051 10008	0Ω 5% 0,25W
3318	4822 051 20008	0Ω JUMP.
3323	4822 052 10188▲	1Ω8 5% 0,33W
3324	4822 052 10478▲	4Ω7 5% 0,33W
3325	4822 052 10338▲	3Ω3 5% 0,33W
3334	4822 050 21002	1k 1% 0,6W
3341	4822 053 11102▲	1k 5% 2W
3342	4822 052 10109▲	10Ω 5% 0,33W
3346	4822 113 80633▲	0Ω1 5% 3W

3347	4822 051 20008	0Ω JUMP.
3348	4822 051 20562	5k6 5% 0,1W
3349	4822 051 20221	220Ω 5% 0,1W
3350	4822 051 20562	5k6 5% 0,1W
3351	4822 051 20008	0Ω JUMP. (0805)
3352	4822 051 20562	5k6 5% 0,1W
3356	4822 116 52195	47Ω 5% 0,5W
3357	4822 116 52195	47Ω 5% 0,5W
3360	4822 052 10399▲	39Ω 5% 0,33W
3361	4822 052 10399▲	39Ω 5% 0,33W
3367	4822 052 10188▲	1Ω8 5% 0,33W
3369	4822 053 11338▲	3Ω3 5% 2W
3370	4822 116 52264	27k 5% 0,5W
3371	4822 116 52251	18k 5% 0,5W
3372	4822 116 52244	15k 5% 0,5W
3375	4822 116 52263	2k7 5% 0,5W
3377	4822 116 52263	2k7 5% 0,5W
3379	4822 052 10339▲	33Ω 5% 0,33W
3381	4822 052 10339▲	33Ω 5% 0,33W
3383	4822 116 52238	12k 5% 0,5W
3386	4822 105 11023	1k 30%lin 0,1W
3387	4822 051 10102	1k 2% 0,25W
3388	4822 051 10102	1k 2% 0,25W
3389	4822 051 10102	1k 2% 0,25W
3396	4822 052 10228▲	2Ω2 5% 0,33W
3397	4822 052 10228▲	2Ω2 5% 0,33W
3400	4822 051 20339	33Ω 5% 0,1W
3401	4822 051 20271	270Ω 5% 0,1W
3402	4822 051 10102	1k 2% 0,25W
3403	4822 051 20332	3k3 5% 0,1W
3404	4822 051 20331	330Ω 5% 0,1W
3405	4822 051 20271	270Ω 5% 0,1W
3406	4822 051 20222	2k2 5% 0,1W
3407	4822 051 20222	2k2 5% 0,1W
3408	4822 051 20225	2M2 5% 0,1W
3409	4822 051 20222	2k2 5% 0,1W
3410	4822 051 20225	2M2 5% 0,1W
3411	4822 051 20224	220k 5% 0,1W
3412	4822 051 20224	220k 5% 0,1W
3413	4822 051 20223	22k 5% 0,1W
3414	4822 051 20223	22k 5% 0,1W
3415	4822 051 20101	100Ω 5% 0,1W
3416	4822 051 20101	100Ω 5% 0,1W
3417	4822 051 20109	10Ω 5% 0,1W
3418	4822 051 20221	220Ω 5% 0,1W
3419	4822 051 20222	2k2 5% 0,1W
3420	4822 051 20562	5k6 5% 0,1W
3421	4822 051 20223	22k 5% 0,1W
3422	4822 051 20221	220Ω 5% 0,1W
3423	4822 051 20123	12k 5% 0,1W
3424	4822 051 20682	6k8 5% 0,1W
3425	4822 051 20334	330k 5% 0,1W
3426	4822 051 20562	5k6 5% 0,1W
3430	4822 051 10102	1k 2% 0,25W
3435	4822 051 20101	100Ω 5% 0,1W
3438	4822 052 10479▲	47Ω 5% 0,33W
3439	4822 052 10478	4Ω7 5% 0,33W
3440	4822 051 20123	12k 5% 0,1W
3441	4822 051 20103	10k 5% 0,1W
3442	4822 051 20273	27k 5% 0,1W
3443	4822 051 20153	15k 5% 0,1W
3445	4822 051 20103	10k 5% 0,1W
3449	4822 051 20392	3k9 5% 0,1W
3450	4822 051 20392	3k9 5% 0,1W
3451	4822 051 20332	3k3 5% 0,1W
3452	4822 051 20332	3k3 5% 0,1W
3453	4822 117 11139	1k5 1% 0,1W
3454	4822 117 11139	1k5 1% 0,1W
3455	4822 051 20681	680Ω 5% 0,1W
3456	4822 051 20681	680Ω 5% 0,1W
3457	4822 051 20561	560Ω 5% 0,1W
3458	4822 051 20561	560Ω 5% 0,1W
3459	5322 100 11542	4k7 30%lin 0,1W
3460	5322 100 11542	4k7 30%lin 0,1W
3461	4822 051 20472	4k7 5% 0,1W
3462	4822 051 20472	4k7 5% 0,1W
3463	4822 117 11139	1k5 1% 0,1W
3464	4822 117 11139	1k5 1% 0,1W
3465	4822 117 11139	1k5 1% 0,1W
3466	4822 117 11139	1k5 1% 0,1W
3467	4822 117 11139	1k5 1% 0,1W
3468	4822 117 11139	1k5 1% 0,1W
3469	4822 117 11139	1k5 1% 0,1W
3470	4822 117 11139	1k5 1% 0,1W
3471	4822 051 20479	47Ω 5% 0,1W
3473	4822 051 10102	1k 2% 0,25W
3474	4822 051 20182	1k8 5% 0,1W
3475	4822 051 20562	5k6 5% 0,1W
3476	4822 051 10102	1k 2% 0,25W
3477	4822 051 20182	1k8 5% 0,1W
3478	4822 051 20562	5k6 5% 0,1W
3479	4822 051 10102	1k 2% 0,25W
3480	4822 051 20182	1k8 5% 0,1W
3481	4822 051 20562	5k6 5% 0,1W
3482	4822 051 20332	3k3 5% 0,1W
3483	4822 051 20222	2k2 5% 0,1W
3484	4822 051 20682	6k8 5% 0,1W
3485	4822 051 20103	10k 5% 0,1W
3486	4822 051 20103	10k 5% 0,1W
3487	4822 116 52296	6k8 5% 0,5W
3488	4822 051 20222	2k2 5% 0,1W
3489	4822 051 20271	270Ω 5% 0,1W
3490	4822 051 20103	10k 5% 0,1W
3491	4822 051 20103	10k 5% 0,1W
3492	4822 051 20103	10k 5% 0,1W
3500	4822 051 20103	10k 5% 0,1W
3501	4822 051 20103	10k 5% 0,1W
3502	4822 051 20103	10k 5% 0,1W

3503	4822 051 20103	10k 5% 0,1W
3504	4822 051 20104	100k 5% 0,1W
3505	4822 051 20103	10k 5% 0,1W
3506	4822 051 20105	1M 5% 0,1W
3507	4822 051 20101	100Ω 5% 0,1W
3508	4822 051 20562	5k6 5% 0,1W
3509	4822 051 10102	1k 2% 0,25W
3510	4822 051 20472	4k7 5% 0,1W
3511	4822 051 20472	4k7 5% 0,1W
3512	4822 051 20473	47k 5% 0,1W
3514	4822 051 20103	10k 5% 0,1W
3515	4822 051 20479	47Ω 5% 0,1W
3516	4822 051 20479	47Ω 5% 0,1W
3517	4822 051 20479	47Ω 5% 0,1W
3518	4822 051 20479	47Ω 5% 0,1W
3530	4822 051 10008	0Ω 5% 0,25W
3531	4822 051 10008	0Ω 5% 0,25W
3532	4822 051 20008	0Ω JUMP.
3533	4822 051 20008	0Ω JUMP.
3534	4822 051 20008	0Ω JUMP.
3535	4822 051 20008	0Ω JUMP.
3536	4822 051 10008	0Ω 5% 0,25W
3537	4822 051 10008	0Ω 5% 0,25W
3538	4822 051 10008	0Ω 5% 0,25W
3539	4822 051 10008	0Ω 5% 0,25W
3540	4822 051 10008	0Ω 5% 0,25W
3541	4822 051 10008	0Ω 5% 0,25W
3542	4822 051 10008	0Ω 5% 0,25W
3543	4822 051 10008	0Ω 5% 0,25W
3544	4822 051 20008	0Ω JUMP.
3545	4822 051 20008	0Ω JUMP.
3546	4822 051 20008	0Ω JUMP.
3547	4822 051 10008	0Ω 5% 0,25W
3548	4822 051 10008	0Ω 5% 0,25W
3549	4822 051 10008	0Ω 5% 0,25W
3550	4822 051 10008	0Ω 5% 0,25W
3551	4822 051 20008	0Ω JUMP. (0805)
3552	4822 051 10008	0Ω 5% 0,25W
3553	4822 051 10008	0Ω 5% 0,25W
3554	4822 051 10008	0Ω 5% 0,25W
3555	4822 051 10008	0Ω 5% 0,25W
3556	4822 051 10008	0Ω 5% 0,25W
3557	4822 051 10008	0Ω 5% 0,25W
3558	4822 051 10008	0Ω 5% 0,25W
3559	4822 051 10008	0Ω 5% 0,25W
3560	4822 051 10008	0Ω 5% 0,25W
3561	4822 051 10008	0Ω 5% 0,25W
3562	4822 051 10008	0Ω 5% 0,25W
3563	4822 051 10008	0Ω 5% 0,25W
3564	4822 051 10008	0Ω 5% 0,25W
3565	4822 051 10008	0Ω 5% 0,25W
3566	4822 051 10008	0Ω 5% 0,25W
3567	4822 051 10008	0Ω 5% 0,25W
3569	4822 051 10008	0Ω 5% 0,25W
3570	4822 051 20008	0Ω JUMP.
3571	4822 051 10008	0Ω 5% 0,25W
3575	4822 051 20562	5k6 5% 0,1W
3577	4822 051 20222	2k2 5% 0,1W
3578	4822 051 20181	180Ω 5% 0,1W
3579	4822 051 20829	82Ω 5% 0,1W
3581	4822 051 20271	270Ω 5% 0,1W
3584	4822 051 20222	2k2 5% 0,1W

COILS

5001	4822 146 31364▲	MAINS TRAFO
5252	4822 157 70599	COIL
5253	4822 157 70599	COIL
5254	4822 280 70368▲	RELAY 36V 7A
5255	4822 157 70003▲	MAINS CHOKE
5400	4822 242 72527	CST 4MHz
5401	4822 157 53139	4,7µH
5402	4822 157 51195	1 µH
5403	4822 157 51195	1 µH
5404	4822 157 51195	1 µH
5405	4822 157 51195	1 µH

DIODES

6252	4822 130 61219	BZX79-C10
6253	4822 130 61219	BZX79-C10
6257	4822 130 30842	BAV21
6259	5322 130 34563	BZX79-C2V7
6261	5322 130 31504	BZX79-C3V3
6263	4822 130 30842	BAV21
6265	4822 130 32213▲	BYV28-50
6267	4822 130 32213▲	BYV28-50
6268	4822 130 30621	1N4148
6269	4822 130 30621	1N4148
6270	4822 130 30621	1N4148
6271	4822 130 30621	1N4148
6272	4822 130 30621	1N4148
6274	4822 130 30621	1N4148
6275	4822 130 30621	1N4148
6276	4822 130 30621	1N4148
6277	4822 130 30621	1N4148
6278	5322 130 30684▲	1N4002GP
6279	5322 130 30684▲	1N4002GP
6280	5322 130 30684▲	1N4002GP
6281	5322 130 30684▲	1N4002GP
6283	4822 130 82079▲	D3SBA20
6284	4822 130 82079▲	D3SBA20
6290	4822 130 30621	1N4148
6291	4822 130 30621	1N4148

6292	4822 130 30621	1N4148
6293	4822 130 30621	1N4148
6294	4822 130 30621	1N4148
6295	4822 130 30621	1N4148
6297	4822 130 30621	1N4148
6303	4822 130 30621	1N4148
6304	4822 130 30621	1N4148
6307	5322 130 30684	1N4002GP
6312	4822 130 30621	1N4148
6313	4822 130 30621	1N4148
6317	4822 130 32213▲	BYV28-50
6322	4822 130 30621	1N4148
6323	4822 130 30621	1N4148
6324	4822 130 30621	1N4148
6400	4822 130 30621	1N4148
6401	4822 130 80937	BAV74
6402	4822 130 30621	1N4148
6403	4822 130 34174	BZX79-C4V7
6410	4822 130 30621	1N4148
6411	4822 130 30621	1N4148
6412	4822 130 30621	1N4148
6413	4822 130 30621	1N4148
6414	4822 130 30621	1N4148
6415	4822 130 30621	1N4148
6416	4822 130 30621	1N4148
6417	4822 130 30621	1N4148
6418	4822 130 30621	1N4148
6500	4822 130 30621	1N4148
6575	4822 209 72895	LED TLUV5300
6576	4822 130 83065	LED TLHY6405

TRANSISTORS & IC's

7250	4822 130 40937	BC548B
7251	4822 130 40937	BC548B
7252	4822 130 44197	BC558B
7255	4822 209 83274	NJM4560D
7256	4822 130 41691	BC556B
7257	4822 130 41691	BC556B
7258	4822 130 43283	2SC2705
7259	4822 130 43283	2SC2705
7260	4822 130 63317	2SC3419
7261	4822 130 63317	2SC3419
7268	4822 130 63007▲	2SD1893
7269	4822 130 62954▲	2SD1895
7271	4822 130 62954▲	2SD1895
7273	4822 130 62953▲	2SB1255
7274	4822 130 63006▲	2SB1253
7275	4822 130 62953▲	2SB1255
7276	4822 130 40937▲	BC548B
7277	4822 130 44461▲	BC546B
7278	4822 130 40937	BC548B
7279	4822 209 33083	78M08CT
7280	4822 209 80817	78M05CT
7282	4822 209 82112	7908CT
7284	4822 130 40937	BC548B
7289	4822 130 40937	BC548B
7290	4822 209 83274	NJM4560D
7291	4822 209 83274	NJM4560D
7400	5322 209 11517	PC74HCU04T
7401	4822 209 31615	LM324AD
7402	4822 209 33476	CS8412-CS
7403	4822 209 33403	TDA1305T/N2
7410	4822 130 42616	BC818-40
7411	5322 130 41982	BC848B
7412	5322 130 41982	BC848B
7413	4822 130 42616	BC818-40
7414	4822 130 42616	BC818-40
7415	4822 130 42616	BC818-40
7416	4822 130 42616	BC818-40
7417	4822 130 42616	BC818-40
7418	4822 130 42616	BC818-40
7419	4822 130 42616	BC818-40
7420	4822 130 42616	BC818-40
7423	5322 130 41983	BC858B
7424	5322 130 41983	BC858B
7425	5322 130 41983	BC858B
7426	5322 130 41983	BC858B
7427	5322 130 41982	BC848B
7500	4822 209 33474	68HC0509 DSS940
7502	5322 130 41982	BC848B
7575	4822 214 52009	IR EYE GP1U58XP
7576	5322 130 42136	BC848C
7577	4822 130 42513	BC858C
7578	4822 130 42513	BC858C